The **future** of **electronic entertainment** issue#89

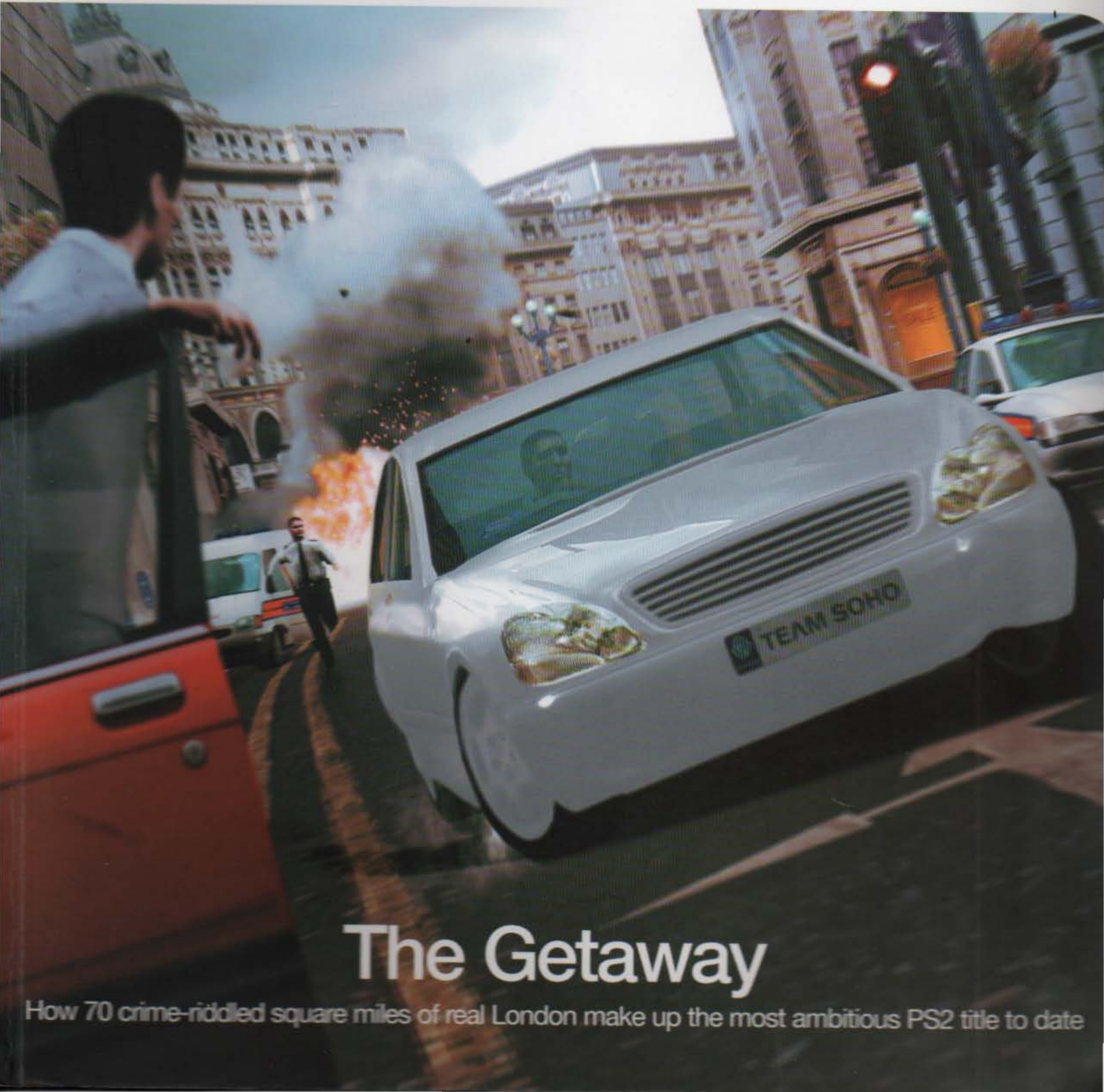
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Dolphin and Game B Advance unveiled: th full story from Tokyo

Mobile phone gaming is this really the future electronic entertainme

The rebirth of Sega: exclusive interviews with nine new divisio



The Getaway

How 70 crime-riddled square miles of real London make up the most ambitious PS2 title to date





How often have you played a game and wondered, what if? What if that collection of buildings lining the road in your driving game was not mere scenery, but in fact an element of fundamental consequence to the gaming experience? What if you could actually stop your car, jump out of it and enter a shop? The team putting together *The Getaway* clearly has pondered all of this, but, rather than allowing such pipedreams to float off into the ether, it is attempting to build them on PlayStation2. The result, showcased this month on p52, is the most stupidly ambitious videogame **Edge** has ever witnessed, and if the finished article comes even near to realising such grandiose plans it will stand tall as a new paradigm.

Yes, developers are finally beginning to foster fertile relationships with their PS2 dev kits, and software of *The Getaway*'s stature seems certain to cement the console as an essential piece of furniture for the home – despite Fleet Street's sensationalist hacks doing their worst to throw a particularly ugly-looking spanner into the works.

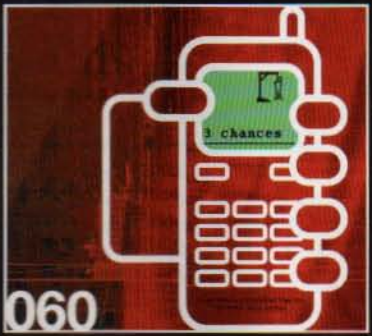
While Sony factories continued to churn out millions more of the company's new lifestyle choice in the form of PS2, this month Nintendo chose to present its new toy, GameCube. At Spaceworld 2000 the company gleefully unwrapped the box in front of hundreds of industry execs holding their chins in their hands, wondering what plans the sleeping giant from Kyoto had been hatching since an aquatic mammal had first been showcased in emblematic fashion in 1999. DVD movie playback, now recognised as one the smartest items on the PlayStation2 agenda, was notable by its absence. In place of such a masses-appeasing element was a giant video wall primed to deliver footage of a new form of entertainment. As 128bit renditions of *Zelda*, *Metroid* and *Mario* danced in front of expectant onlookers' eyes, Nintendo reminded the world that it was ready to come out to play again, and that it was bringing some old, much-loved friends.

And, faced with a barrage of such bewilderingly stellar slices of IP, for an all-too-brief instant, considerations such as being able to use your videogame console to watch 'Blade Runner' paled into insignificance.



Features









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"Hey, buddy, you got a dead cat in there or what?"











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Nintendo shows its hand

Game Boy Advance and GameCube unveiled at Spaceworld 2000; Miyamoto stresses discernible performance over specifications

Nintendo unveiled its two new hardware units – Game Boy Advance and GameCube – at Spaceworld 2000 on Thursday August 24, 2000, at Tokyo's Makuhari Messe Convention centre.

After a brief delay, executive vice president Atsushi Asura opened the proceedings with an introductory speech focusing on Nintendo's past achievements. Within five minutes, his hand reached into his jacket pocket to reveal the Game Boy Advance unit. Essentially a sleekly designed joypad powered by two AA batteries with a centrally mounted 2.9-inch screen (1.5 times the size of GBC's), the 32bit unit boasts two shoulder buttons (which feel disappointingly short on travel), negating concerns over the button limitation of previous Game Boys. The screen is a reflective TFT colour LCD which utilises a newly developed high-contrast white panel – in practice, the image is more visible than its GBC cousin. A PCM stereo sound generator is being used, enabling multiple track simultaneous playback. As expected, GBA is compatible with the current range of GB and GBC games (which currently number some 1,000 titles in Japan). As with the current GBC, different coloured units are available, including the now-obligatory translucent models.

Game Boy Advance will launch in Japan on March 21, 2001 at a ¥9,800 (£60) price point with ten titles. In Europe and the US, a July 2001 release is currently planned, though no details of price were given. Asura-san explained the delayed Japanese release is a result of increased demand for the current GBC model, presently being produced at a monthly rate of 1.5 million units. In order to satisfy customers, production will increase to 2.5 million per month before Christmas, after which GBA manufacturing takes over to ensure a successful launch. Nintendo expects to achieve sales of one million units by the end of the launch month.



GameCube controllers will arrive in the now-familiar rainbow of Nintendo colours

GameCube out of the box

Asura-san then turned his attention to the afternoon's other announcement. A six-foot-high container was wheeled on to the stage and, accompanied by billows of dry ice, five Nintendo GameCubes carried by a quintet of helpful Nintendo girls emerged from the previously empty box to rapturous applause. Painted in five different colours, and measuring just 150mm x 110mm x 161mm, the 405MHz near-cubic unit resembles the top half of a micro hi-fi system, and despite its angular appearance, in the flesh comes across as instantly desirable hardware. Four joypad ports line up above two Digicard slots (used for either 4Mb Digicard flash memory cards or a stamp-sized 64Mb SD-Digicard adaptor for connecting a variety of digital devices such as cameras and mobile phones). To the rear of the unit, digital and analogue AV outputs join the 12V power socket, and a handle assists portability. Storage media comes in the form of an 8cm, 1.5Gb proprietary optical disk from Matsushita, with an anti-piracy system developed by the same company. (Nintendo believes this 8mm disc to be the format of the future and Matsushita should have released DVD-RAM video recorders based on the 8mm disc storage system in Japan by the time you read this.) Accessories include a 56K modem with a broadband unit to follow – either slots neatly into an allocated space underneath the machine.

Launch titles and demos

GameCube launches with five titles in Japan in July 2001, with the US rollout following in October. No details regarding price were unveiled and, typically, Europe will have to wait until early next year for details regarding the PAL launch.

Once the applause died down, Nintendo kicked off the GameCube demos. A glimpse at a sequence showing a roomful of gloriously rendered, partying Pokémon got the ball rolling before *WaveRace* stepped in. Featuring some excellently modelled jetskis









GameCube specs

Nintendo used Spaceworld to reveal finer GameCube details

MPU: IBM PowerPC ('Gekko')
Clock frequency: 405MHz
CPU capacity: 925Dmips (Dhrystone 2.1)
Internal data precision: 32bit integer and 64bit floating-point
External bus bandwidth: 1.6Gb/second (peak)
External bus bandwidth: 1.6Gb/second (peak) (32bit address, 64bit data bus 202.5MHz)
Internal cache: L1: Instruction 32Kb, data 32Kb (eight-way); L2: 256Kb (two-way)

System LSI: 'Flipper'
Clock frequency: 202.5MHz
Embedded frame buffer: Approx. 2Mb
Sustainable latency : 5ns (1T-SRAM)
Embedded texture cache: Approx. 1MB
Sustainable latency : 5ns (1T-SRAM)
Texture read bandwidth: 12.8Gb/sec (peak)
Main memory bandwidth: 3.2Gb/sec (peak)
System floating-point arithmetic capability: 13.0GFLOPS (peak) (MPU, geometry engine, HW lighting total)
Actual display capability: 6 million to 12 million polygons/second (display capability assuming actual game with complexity model, texture, etc)
System main memory: 24Mb sustainable
Latency: 10ns or lower (1T-SRAM)
A-memory: 16Mb (100MHz DRAM)
Image-processing functions: fog, subpixel anti-aliasing, HW light x8, alpha blending, virtual texture design, multi-texture mapping/bump/environment mapping, MIPMAP, bilinear filtering, realtime texture decompression (S3TC), 24bit colour, etc
Other: Realtime decompression of display list, HW motion compensation capability

Sound processor: custom 16bit DSP
Instruction memory: 8Kb RAM + 8Kb ROM
Instruction memory: 8Kb RAM + 8Kb ROM
Data memory: 8Kb RAM + 4Kb ROM
Clock frequency: 101.25 MHz
Maximum number of simultaneously produced sounds ADPCM: 64ch
Sampling frequency: 48KHz

Disc drive: CAV (Constant Angular Velocity)
System average access time data transfer speed: 16Mbps to 25Mbps 128ms
Media: 8cm Nintendo GameCube disc, based on Matsushita's optical disc technology media, approx. 1.5Gb capacity

Input/output:
Controller port x4
Digicard slot x2
Analog AV output x1
Digital AV output x1
High-speed parallel port x1

Main unit dimensions:
150mm(W)x110mm(H)x161mm(D)



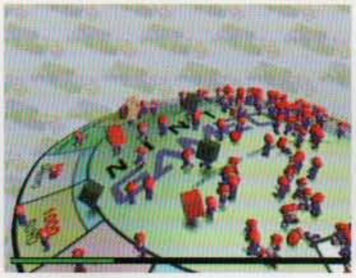
GameCube's expansion port accepts either a Nintendo 56K modem or a broadband unit



The SD-Digicard adaptor will allow GameCube to be linked up to devices such as digital cameras and mobile phones

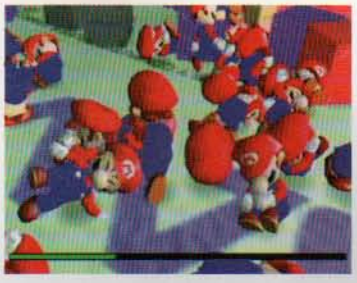


Nintendo proudly demonstrated its new controller, which can be used with an optional wireless adaptor from up to ten metres



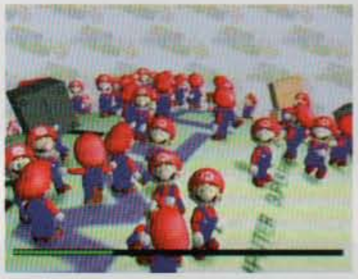














Each demo brought a different type of emotion from the attendees of the pre-Spaceworld event. Miyamoto-san's Mario demo (each of the 128 character models was made up of around 700 polys) had some in stitches, while the *Zelda* section drew gasps because of its insane level of detail. However, the most vocal response greeted the appearance of Samus Aran in a sequence that could become part of a StarCube *Metroid*

and riders cutting their way through a chrome-like sea, the all-too-rapid sequence was enough to demonstrate some striking lighting, enhancing the remarkable texture quality. If you remember the original's impact on the videogaming world, you won't underestimate the noise this will make.

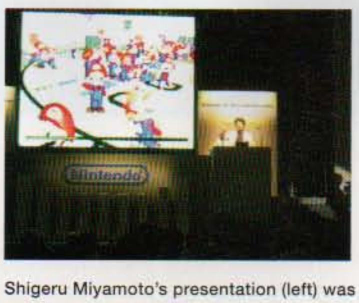
Zelda was possibly the most visually impressive title, with a sequence showing a grown-up Link fighting Ganondorf in an atmospheric castle room lit by the numerous sword/axe strikes. The detail of the characters is unprecedented in a Nintendo game, and the seemingly advanced state of the title surprised many who thought it still very much stuck in development infancy.

But if the crowd reacted emphatically to both *WaveRace* and *Zelda*, it positively erupted as a sequence showing a gloriously textured Samus from *Super Metroid* running towards the camera along a gloomy spaceship corridor (followed by hundreds of beautifully animated space rats) kicked off. The level of detail in Samu's suit is awe-inspiring, and while the aesthetic of a 128bit update of one of Nintendo's finest creations has long been a moot point, the resulting images astound.

Thirdparty offerings

LucasArts followed with a sequence showing a squadron of X-Wings and their subsequent attack on a Death Star-type structure. Marginally less impressive than Nintendo's own material, the sequence was solid and a strong indication of a visually rich 'Star Wars' title on its way for Nintendo's forthcoming machine (much in the same way as the early demos of *Shadows Of The Empire* for the N64). Rare's offering of a high-polygon, but almost motionless, model of Joanna Dark failed to excite and was by far the most disappointing sequence. (After the show, a sequence detailing a 128bit version of *Banjo-Kazooie* with the eponymous duo running away from a posse of pursuing high-poly characters shown on a looping demo would go a little way to restore the developer's reputation – dust effects, texture quality and facial expressions were most notable.)

Nintendo regained audience interest with a sequence showcasing Luigi's antics (sliding down the banister, screaming like a girl) from *Super Mario 128* in a superbly detailed and masterfully lit haunted mansion boasting a stupefyingly polygon count. A crashing chandelier demonstrated realistic physics modelling, while the semi-translucent Boos terrorising Luigi were beautifully and intricately detailed, with some superlative facial expressions – in many ways they're reminiscent of the slimer ghosts from the 'Ghostbusters' films – only better animated. Everything ran at 60fps.







Shigeru Miyamoto's presentation (left) was naturally a highlight, containing carefully considered language. Nintendo hopes that the 8cm disks (centre) will become a kind of industry standard in years to come. GameCube in all its naked, part-IBM-engineered glory (right)









Nintendo's big brands were pushed to the fore, with Luigi negotiating a haunted castle (far left), plus Pokémon aplenty

The key difference between Nintendo's demo and those of its competitors was the use of real game footage as a way of detailing genuine applications.

Focusing on games

As the attendees recovered and the US journos ceased their hollering, Nintendo director Genyo Takedo took to the stage and emphasised Nintendo's focus on games and gameplay. The concept of GameCube, he stated, was to present developers and players alike with the ultimate hardware for playing games. Hence the ease of use and the removal of the typical bottlenecks associated with development problems. He talked of the N64's reputation as a games machine that was difficult to develop for as a valuable lesson, and went on to list the features introduced in order to make its 128bit successor a far more straightforward proposition. He highlighted the introduction of 1T-RAM technology, which has a minimum of delays, into the main memory, and the graphics LSI mixed memory. Secondary cache memory with a large capacity is implemented in the MPU, resulting in alleged functionality that can be used with games with consistent reliability.

The Wavebird controller

Shigeru Miyamoto then stepped up to talk through the joypad. If GameCube isn't necessarily a shape you would normally associate with Nintendo, the controller certainly is. With the aid of an onscreen Boo which burped out function letters and altered its shape on command, Miyamoto-san cycled through the ergonomic unit's eight buttons, two analogue sticks and D-pad. The L/R buttons are now analogue, and two trigger buttons have squeezed in above them. The C buttons, while still perceived as camera operators, have been replaced by an analogue stick. Named the Wavebird, the joypad unit is also available in wireless form and will operate up to a distance of ten metres. The coup de grâce was that a Game Boy Advance can be plugged into the GameCube, and games can be played using the GBA controls with its screen acting as a high-spec VMU.

Explaining that following the way competitors aped ideas first seen in the titles shown for the N64 after the machine's initial public appearance, Miyamoto-san said he had to restrict the amount of game footage Nintendo was willing to show. Still, a technical demo of the machine's potential featuring Mario on a circular Monopoly-style board was soon on the stage's three screens. Within seconds, 128 hi-res Marios made up of 700 polygons each (along with the 128 polygonal boxes they were hiding under) were running around, rolling each other off the edge of the board and generally behaving independently from each other, while displaying correct physical modelling. Unsatisfied with the number of moving objects, Miyamoto-san added more boxes, radically changed the terrain topography (only the stronger Marios resisted falling into the resulting troughs), altered the lighting, wobbled the board with hilarious effect as most of the Marios bounced their way into oblivion, gave them all toon shading, turned them transparent, added motion blur, and then turned the whole thing into a pizza. It was an impressive insight into the machine's potential, though Miyamoto-san made a point of not talking figures.

"In my experience, there have often been theoretical claims of high performance for game hardware, and although people were very impressed by the figures, the actual products haven't even delivered one tenth of the claims," he stated. "It is a given that the Nintendo GameCube will offer better graphics and higher quality sound, but more importantly it will allow developers the freedom to concentrate on creativity without worrying about technical limitations." A preliminary strike against Microsoft's more powerful hardware, undoubtedly, but until X-Box boasts a line-up as convincing as GameCube's, **Edge**'s money is unquestionably on Nintendo's machine. Expect no more details on GameCube until E3 next May, where Nintendo has announced it will reveal its line-up in preparation for the Japanese July launch. **Edge** will carry a full report of Spaceworld 2000 in next month's issue.

"There have been claims of high performance for game hardware, and although people were impressed, the products haven't delivered"



Nintendo terms these tones magenta, purple, black, champagne and steel. How much it expects the carrying handles to be used is unknown



Game Boy Color was the last item on the handheld agenda at the event: its Mobile Adapter GB was shown for the first time in Japan



In a novel twist, GBAs can be linked to GameCube to act as luxury VMUs



Forthcoming GBA titles include (from left to right) *Mario Kart Advance*, *Ougon No Taiyo* (*Golden Sun*) and *Napoleon*







PlayStation2 suffers new media storm

Press rounds on Sony over UK PlayStation2 price compared to continental Europe and US



The troubled launch of PlayStation2 in the UK has been hit by further setbacks in the shape of a spate of newspaper headlines denouncing its £300 price point, which materialised shortly after Sony announced that the launch date would be set back by a month. While the preorder system is still planned to commence on September 7, the European release date for the machine has been pushed to November 24. The US launch is still set to take place on the originally mooted date of October 26.

The substantial difference in the price of PlayStation2 in the UK and the US – where the console will sell for $300, or approximately £200 – was seized upon by several national dailies, including *The Star*, which featured the story on its front page as another example of 'rip-off Britain'. However, HMV games manager **Doug Bone** argues the issue isn't quite as clear cut: "The price point is certainly an issue – the headlines in the tabloids help nobody – but it has to be said that less than £300 for a DVD player and a 128bit console is in

line with other platforms in the marketplace, and still better bang for your buck than £7.99 for a pack of Pokémon trading cards."

Some gamers will no doubt continue to be aggrieved by the price, but it's clear that there are several factors beyond Sony's control, as director of marketing for the UK, **Alan Welsman**, explains: "There is no gain in us pricing it higher than we think the market can bear. The truth of it is that there are different tax regimes in America and England or Europe, and that we have, on average, a 17.5 per cent VAT, whereas they have a sales tax which is between six and ten per cent." While this may not be sufficient in itself to justify the price, there are other issues, says Welsman: "We also have far greater distribution and administration costs across Europe. First of all we have localisation issues – different languages and transport arrangements. All of the kind of administration costs that you might imagine, including rent, rates, taxes

differences across the European Union are less marked, with the console priced at ¤456 (£278), in France.

No such thing as bad publicity

Press interest in the launch of a videogame console clearly owes much to the current 'rip-off Britain' campaign, but it is also a testament to the current prominence enjoyed by the videogame industry – built in large part upon the success of the original PlayStation. So it is disturbing that trade papers cited rumours that the headlines were started by the activities of 'the PR agency for one of Sony's rivals'. This is especially true given the price of one rival console, the Dreamcast, which also launched at a substantially lower price in the US – $200 – than it did in the UK, where it launched at £200.

Territorial discrepancies are not a new phenomenon for the industry. The relatively high price is, though, a bitter pill to swallow given the delayed launch, and

> "Sony isn't looking for sympathy, and we understand that people might feel aggrieved, but we do our best for Europe and the UK"

associated with businesses generally being higher for all of the businesses we deal with, and on top of that the margins that European retailers look for are greater than the margins that American retailers look for. They only ask for a higher margin because their shop, their staff, and everything costs more over here than it does in any other country." Certainly the



Alan Welsman is keen to dismiss claims that PlayStation2 is overpriced, citing greater distribution costs and sales tax

does seem to be a strange reward for the loyalty that British gamers have shown to PlayStation. "We understand exactly how important Europe is in the whole of the business for PlayStation and PS2," says Welsman. "We have sold more PlayStations in Europe than they have sold in both Japan and America. At launch there is a bottleneck. Because the demand is outstripping supply in Japan, they're having to feed that market, and subsequently, because of the NTSC similarities between America and Japan, they move swiftly on to America.

"Some of our figures are saying that demand before Christmas could be as high as over a million units. Unfortunately production can't meet that demand. We're trying to talk to our consumers and make sure they know that we do value them, but there is the inevitable conclusion that, yes, there is a pecking order, and that Japan comes first. All of us would like it to be a global launch date, but actually that's very difficult to achieve when you're producing the kind of numbers that we need to fulfil







The price of PlayStation2 was announced to the public in a series of indignant headlines

the demand. We're not looking for sympathy, and we understand that people might feel aggrieved, but we do our best for Europe and the UK."

Nevertheless, there is still uncertainty as to how many units will actually be available on the day of launch, and the preorder system is not entirely popular with retailers. Sony has also revealed that, contrary to earlier reports, there will be no free stock available until possibly after Christmas. "We can't at the moment say exactly how many units will be available on launch day, we can only confirm that three million units will be shipped in Europe for the end of our financial year, which is the end of March 2001," says Welsman. Consumers who preorder a PlayStation2 will be guaranteed to get a machine before

Christmas, but not on the day of launch. Enough preorder forms will therefore be distributed to retailers to cover the amount of units that will be shipped before Christmas, and consumers will be informed when they will receive their console in a letter from Sony. The verdict of **Clare Askem**, of Dixons, regarding preorders is muted: "It's not ideal, but I can understand what Sony are trying to deal with, which is a very small amount of stock versus the anticipated demand. I think it's very complicated, and as a non-specialist it's quite a complex thing to be doing, and I'm quite worried about the operational aspects of that, in terms of trying to manage that through our busiest time of year. In terms of the strategic intent, I sympathise with it."

The biggest difficulty posed to retailers by the system is the management of consumer expectation and understanding, which some retailers point out is to the advantage of Sony's competitors. "Dreamcast is entering a potentially exciting period," argues Bone. "With the most impressive 128bit software ever developed about to hit shelves, the opportunities for Dreamcast this Christmas are vast. In the same way that Nintendo 64 capitalised on stock shortages of PlayStation in recent Christmases, Dreamcast is poised to take similar advantage of PS2's limited availability." Welsman is less concerned, believing that consumers will wait: "There will always be a minority who switch to the Dreamcast or any other format that's available if they can't get the machine they're after, but most people who want a PlayStation2 will wait for a PlayStation2." Certainly retailers are agreed that the Dreamcast will have to be on sale at the right price before consumers will be willing to switch.

It's unlikely that the high price point and shipping delays will dampen the huge demand for PlayStation2 that already exists. Sony should be more concerned by the fact that devoted gamers are still likely to be deterred by the average quality of many of the titles that have been pencilled in for launch. It is therefore to be hoped that the company uses the delay to ensure the delivery of a higher quality of launch software than is currently expected.

industryopinion

Developers and retailers on PS2 launch problems

"Sony have certainly implemented a rather radical approach to their preorder process. While the communication flow to retail has been consistent, they will need to maintain their traditionally strong PR message to the consumer, as there is some confusion as to how customers go about securing their machine before Christmas. Stock availability will be an issue, though in Sony's defence it always has been, no matter what the platform may be. With the overwhelming launch success in Japan, plus the production demands of the imminent Psone, it will be no different for the PS2.

"Many cynics appear to have already picked their winners in the hardware wars, citing the war as a two-horse race between Sony and Microsoft, but with Sega about to potentially get their online message over to customers and Nintendo about to reveal further details of Dolphin, there may be more to this battle than initially appeared."
Doug Bone, HMV

"Obviously it's a shame that we will be getting PS2 later than the other two main markets, but I think this is sympathetic of two things – the huge demand in Japan and the development of PAL hardware. It's always going to be easier to ship new consoles for the US, because they use the same TV standard and don't, as such, need any new display hardware. It's a fact of life, but still disappointing for the European consumers.

"I'm pretty surprised about the amount of concern in the press about the price of the console. I remember buying the first PlayStation five years ago for around the same price and didn't consider it a rip-off at the time. I think the new console has so much more going for it – games broadband, DVD, etc – that it seems remarkable that it's stayed at the same price.

"Personally I hope that the delay will help us get some better games ready for the market than some of the games we saw for the Japanese launch. I think there is quite a good window of opportunity for Dreamcast. It's all about having good games. At the start there weren't too many, but as time has gone on they've got better and better. I think this will also be true for PS2 as the games that are now in development look amazing."
Brendan McNamara, Studio Soho

"I don't think the delayed launch of the PS2 will alienate consumers – the price point is aggressive for an entry level console, and it will still make it in time for Christmas as anticipated. This is a stunningly desirable machine that consumers will wait for – a four-week wait won't push them towards alternative consoles. I'm sure Sony will use the delay to maximise the hype, though this raises concern that they may not be able to cope with the initial demand at retail."
Paul Jackson, Electronic Arts

"I don't think the delay will alienate people; not for long anyway, as most purchases will be Christmas presents. Once you buy a machine, the fact it was a month or so later is soon forgotten. It is more likely to increase anticipation. A few people may buy a Dreamcast, but those that are swayed by a month's delay suggest it is not a major purchase for them and probably have the money to buy both – in fact, they probably have a Dreamcast already."
David Braben, Frontier Developments

"I think there will be an awful lot of disappointed customers this Christmas, especially the non-hardcore gamer. Anybody who's very close to the market and the product will know there are shortages, but in the more massmarket case, where little Johnny really wants one for Christmas and his mum and dad go out and try to get one in the run up in the normal purchasing cycle, I think the consumer's going to be very disappointed. Which is why I can understand why Sony are trying to manage that expectation and manage the flow of products."
Clare Askem, Dixons

Blockbuster goes broadband

Video rentals giant dives into on-demand, paving the way for games piped direct to the home

The implications of a broadband future became more apparent on July 19, when Blockbuster announced plans to launch an entertainment on-demand network in conjunction with Enron Broadband Services in the US. Initially the service will offer video on-demand to several US cities by the end of the year, so that users can enjoy pay-per-view movies which benefit from VCR-like functionality. Eventually, though, the service will offer other forms of entertainment, including videogames on demand. It is planning to extend the service to other markets, including the UK, in 2001.



Dreamcast price slashed

Sega cuts console RRP in run-up to PlayStation2 launch

While Sega has announced that from September 8 the official price for the Dreamcast will be reduced from £200 to £150, Dreamcast owners will be unhappy to hear that the platform has been hit by the announcement of a number of cancellations. UbiSoft has confirmed that *The Road to El Dorado*, based on the movie of the same title, won't appear on Dreamcast, while PC port *Baldur's Gate* has been dropped and *Messiah* placed on hold. Other titles said to have been dropped from the Dreamcast release schedule include *UEFA Striker 2001*, *Croc 2* and *Max Payne*.

A Sega spokesman would only say: "We have fantastic support from thirdparty publishers. Between now and Christmas thirdparty publishers will release at least 58 titles for Dreamcast. As always, Sega of Europe are working very closely with thirdparty publishers to ensure that Dreamcast continues to supply gamers with outstanding and innovative titles such as *Black & White*, *F355*, and *Half-Life*."

However, it is clear that publisher apathy is responsible for at least some of the cancellations, and developers continue to have reservations about the platform, including **Jez San** of Argonaut: "We could all be surprised and Sega might do something good, but so far they've not been doing so well. I'm sure its not through want of trying, but more through lack of cash. The industry does not expect them to pull through in the form that they are today. Everyone expects them to throw in the towel on platform ownership, and become a software company for other people's platforms."

Titles including *Baldur's Gate* (right) and *Colin McRae Rally 2.0* have seen their release on Dreamcast cancelled



BAFTA to visit evolution2000

Interactive entertainment award nominations to go on show in Leeds

The deadline for entries for this year's BAFTA Interactive Entertainment Awards has passed, and the nominations will be on display at evolution2000, part of the Leeds International Film Festival, taking place on October 12-13.

Created by festival Director Chris Fell and BAFTA Interactive's Helen Wood, evolution2000 is now in its second year. Last year's attendees included Peter Molyneux of Lionhead Studios and Charles Cecil from Revolution Software. This year the event will feature BAFTA Interactive sessions about designing for modern consoles and a presentation from Jonathan Freedman of Sony on PlayStation2. Attendees will also be able to enter several gaming competitions, with games projected onto an open-air cinema-size screen courtesy of Christie Digital Systems. ELSPA is on board as an official sponsor, and the event is organised in association with Synergy-tv.com, a Web broadcaster. Further information and tickets can be obtained by visiting www.leedsfilm.com, and the event will be broadcast live on the Internet.

The BAFTA Interactive Entertainment Awards ceremony will take place on October 26, in London.



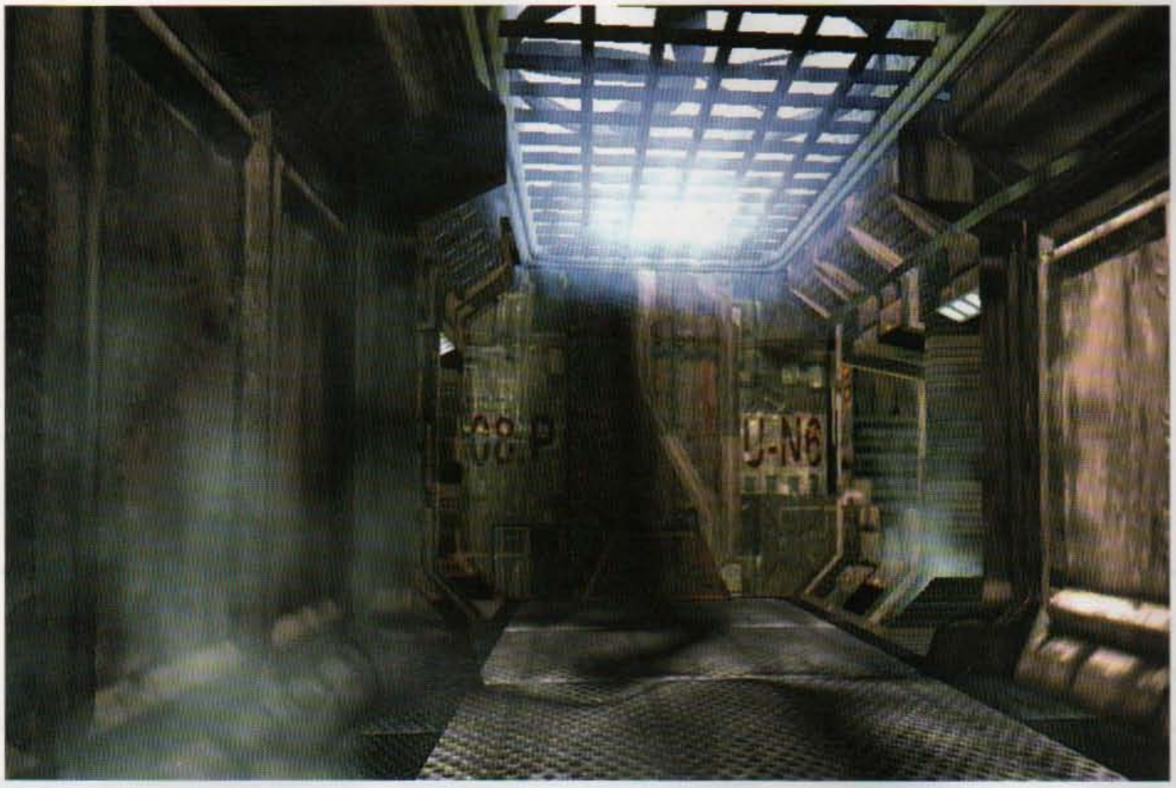




Following the success of last year's event, which featured speakers such as Jonathan Freedman (far left) and Peter Molyneux (left), a strong line-up has been announced for this year, including Revolution's Charles Cecil (above)

Siggraph marks new movie-game synergy

New Orleans convention showcases fresh wave of cinema/videogame cross-fertilisation



On top of films like 'Stuart Little' and 'The Perfect Storm', Alias Wavefront envisages Maya becoming middleware for PlayStation2 with its SDK package, which will create an engine for artists and programmers to work within



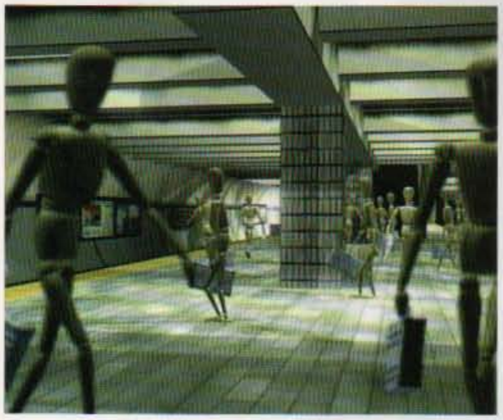


The last week of July witnessed the Siggraph Conference touch down for a five-day graphics extravaganza at the Ernest N Morial Convention Centre in New Orleans.

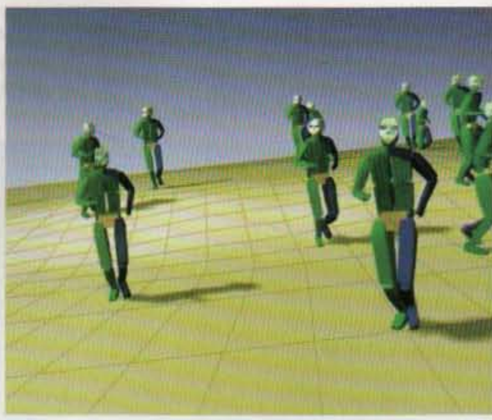
Pixar screened its 'For the Birds' short to an American audience for the first time, Sony Pictures lapped up the plaudits for its work on 'Stuart Little' and 'The Hollow Man', and ILM revealed a few of the secret tools and techniques it used to create that amazingly real rough water in 'The Perfect Storm'.

While this may seem as though it has nothing to do with the games industry, most of the tools currently used for movie effects are exactly the same ones game developers are taking on for their PlayStation2 and X-Box projects. Equally, software developers like Discreet, Alias Wavefront, Softimage and Side Effects are keen to turn their motion-picture FX products into games industry moneymakers. Though game companies didn't have a massive presence at the exhibition, plenty of artists and creative directors from development houses were sniffing around the show, taking in the techniques used in the major movies in the hope of converting the knowledge into stunning content for PS2, PC and X-Box. That, and checking out the latest creative software for their studios.

Perhaps the most interesting trend as far as software is concerned is how animation systems are evolving. Having released *SoftimageXSI* this spring, Softimage has also been making great strides forward. *XSI* already affords its







Others use custom solutions, but Discreet's *Character Studio 3* is a plug-in for *3D Studio Max* which makes generating realistic crowd animation easier, eliminating character collisions



ILM's work creating super-waves for 'The Perfect Storm' could give game developers a number of new pointers

users the ability to create animations in a process similar to non-linear video editing. Hence a run cycle can be merged easily with a jump animation, with the software working out what a running jump might look like. In future versions, *XSI* will include a new viewer system wherein animations can be created for games based on behavioural systems. A character with a basic set of animation cycles can be released into an environment and sent out to achieve an objective. Like a game character with its own logic and pathfinding ability, it can be left on its own to go into motion. When this technology is fully developed, animators will be able to interactively direct animations rather than keyframe them.

Available more immediately will be Discreet's *Character Studio 3*, a plug-in for *3D Studio Max*. This brings with it a crowds feature making the animation of groups of people, or flocks or herds of animals, that bit easier. Animated characters can mill about in realistic fashion without colliding with one another.

Discreet was also showing its next version of *3D Studio Max*. Extremely popular in the games industry for the creation of artwork and animation, the new version will have a realtime viewer wherein users will be able to instantly preview work, even if it requires multiple passes. Full effects, shading and texturing – all animated – can be seen. It's a way of giving artists an approximation of what their output will look like in realtime, with the game engine.

Indeed, with features like crowd-handling, behaviours and realtime effects rendering appearing in these creative packages, the applications themselves are moving closer and closer to being game engine technology. It won't be long before much of this software is classed as middleware. Indeed, Alias Wavefront, already well known for its *Maya* software, used for both film effects and games, is now shipping a realtime SDK. Artists and programmers are presented with an engine to work within to develop for PlayStation2, X-Box, GameCube and OpenGL on the PC. Thus, art assets don't need to be ported, converted or dumbed down for the game code.

Most of the tools currently used for movie effects are the same ones developers are taking on for their PS2 and X-Box projects

The first client for the SDK is Sony, as its 989 Studios prepares to use the system to develop sports titles for PS2. Sony itself had a rather strange presence at Siggraph. The company was demonstrating its rather odd GScube – a box with souped-up PS2 chipsets inside and flashing lights on the exterior. It was a prototype workstation capable of rendering scenes from Square's 'Final Fantasy' movie in realtime, as well as other applications, like military flight sims.

Making waves

ILM shows off technology that generated 'The Perfect Storm'

One of the most fascinating presentations at Siggraph was staged at the Alias Wavefront user group meeting. Before an audience of some 2,500, ILM showed how it used *Maya*, plus a host of plug-ins and extra tools, to create the incredibly realistic waters in 'The Perfect Storm'.

The company had technical directors covering every angle of fluid dynamics. Some worked on mist and spray. Others tackled surface turbulence, foam and capillary waves. Plus there was the task of handling the changing air pressure just above the surface of the water so that spray would move up and down with the waves. Once the water itself had been simulated, it had to be set up to interact correctly with the boat in the film. While in some scenes a live-action boat was used, in others it's entirely CG. The lighting had to be set up to render correctly; an added difficulty was that different types of spray create different types of refraction.

Soon nautical games may require similar levels of effort to be convincing. Thankfully, though, at least some of the legwork has been done.

Rebellion sparked as Judge Dredd sells out

Brit developer purchases *2000AD* from Egmont Fleetway, obtaining super-rich seam of character IP



Dredd remains the best known character, but the vast *2000AD* portfolio includes characters like Deadlock

British developer Rebellion, best known for PC title *Aliens vs Predator* and currently working on *Gunlok*, has purchased the well-known British comic *2000AD* from publisher Egmont Fleetway. While it could be argued that taking on the responsibility for publishing a weekly comic could dilute the focus of the developer, access to a 23-year back catalogue containing a vast portfolio of characters, many of which would sit easily in a videogame context, is likely to outweigh the potential disadvantages.

"It all started out with licensing characters," explains Rebellion CEO **Jason Kingsley**. "Up to now and in the future we're going to be working with other people who own their own licences, like Fox and Universal. We also wanted some level of independence, and we were looking at trying to find our own characters to make our own games out of. We got in contact with Egmont Fleetway, and it was just difficult to get the kind of deal I was looking for." Thus began 18 months of discussions that resulted in the acquisition, though Egmont Fleetway will continue to print the comic on a contract basis. "We own the comic, we are employing the editorial staff, but we are looking at setting up a separate corporate vehicle for *2000AD* because it's a successful product in its own right – it makes a profit and has been doing for a while," continues Kingsley.



2000 AD artwork © Rebellion 2000



Andy Diggle, better known to his readers as Tharg, is clear about the advantages that the new ownership brings to *2000AD*: "The Galaxy's Greatest Comic always sat badly within Egmont Fleetway's portfolio of titles, as they are primarily a children's publisher. *2000AD*'s brand of sci-fi, violence and very black humour didn't quite gel with the likes of 'Thomas the Tank Engine' and 'Barbie', and consequently Egmont Fleetway never really knew what to do with it. This was obviously deeply infuriating, especially when it was obvious that *2000AD* is a goldmine of potentially highly profitable licences."

Licences to print money

This rich portfolio is the chief advantage of ownership for Rebellion, which can now develop and license games based on some 700 characters. "Personally, the prospect of a *Syphon Filter*-style game based on Strontium Dog has me drooling with anticipation – although that's just a daydream at this stage," declares Diggle. There is also the talented roster of artists and writers who have worked on the comic over the years, though Rebellion CTO **Chris Kingsley** is cautious not to overstate the possibility that such writers as Grant Morrison and Alan Moore might work their magic on a Rebellion game: "It's very early days at the moment as to how things like that are going to work, but the great thing about it is there are some extremely talented writers and artists on *2000AD* who I'm sure would be interested in getting into games and all that sort of stuff, but we'll see how it develops."

With the sheer size of *2000AD*'s relatively untapped back catalogue, maintaining the integrity of the franchise is clearly a concern, but is a challenge that the Kingsley brothers are certain they can overcome. "*2000AD* is going to remain exactly as it has been for the last 23 years, which is that the editor's in charge and he makes the decision over what goes in and what doesn't, so if we've got something that we want to put in, we have to pitch it to him and we have to convince him that it's a good idea," states Chris. "We want to work with developers and publishers and creatives and license out characters as appropriate," continues Jason, "but we want to make sure that they're good quality stuff. When we do make movie announcements, we'll be quite involved in controlling how things appear. We want to be very actively involved, otherwise we won't do it." When it comes to licensing to other videogame developers, Rebellion hopes that its experience as a licensee will be beneficial. "Hopefully we'll be a bit more sympathetic than your average rights holder," argues Chris. "Once you've got some great ideas and intellectual properties you can use them in lots of different ways, but we want to build them up rather than just exploiting them.

Although it may be a while before any announcements are made regarding videogames featuring any *2000AD* characters, the next-generation consoles and new ownership provide the perfect opportunity to finally doing the likes of Dredd, Rogue Trooper and Halo Jones justice – and repay the debt that the industry owes to the comic, if you agree with Jason Kingsley's argument that the comic has influenced a whole generation of game designers and programmers. As he says: "Mega City One predates the conceptual art on 'Blade Runner' by five years, and most of the people who worked on 'Blade Runner' were Brits. They were all in their twenties, and I'm sure they were all readers of *2000AD*. One wonders if it has had an influence on everything that we've ever come across."

> "The prospect of a *Syphon Filter*-style game based on Strontium Dog has me drooling with anticipation… it's just a daydream at this stage"



Chris and Jason Kingsley have been readers of the comic, which features strips like Durham Red (left), since its first issue, and are hoping to increase its circulation by returning to its darker roots

Morpheme injects new life into WAP

Activision text adventures to be developed for mobile phones

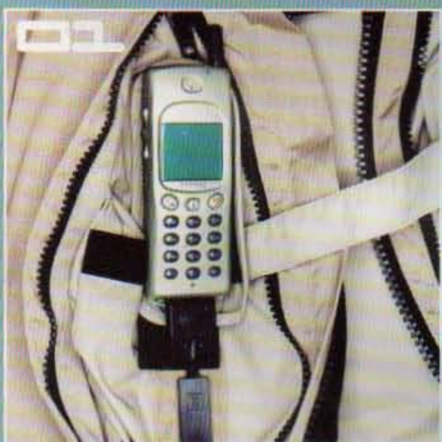
London-based WAP developer Morpheme has announced that it will bring several of Activision's *Infocom* text adventures to WAP platforms. Titles such as *Zork*, *Planetfall* and *The Hitchhikers Guide To The Galaxy*, wowed gamers back in the '80s, though they do not seem to be the obvious choice for a WAP version given the limited interface of current handsets. "Conversion of the Z-Machine to WAP certainly poses some interesting challenges, particularly that of designing and creating an easy to use enhancement or replacement of the classic text entry system," concedes **Andy Fitter**, Morpheme's technical director.

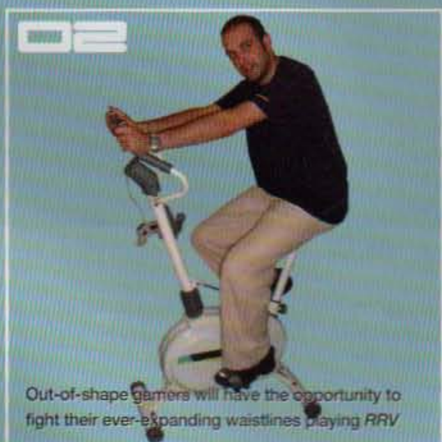
OUT THERE
REPORTAGE



You don't have to pose like a dork in order to wear Philips' new tech, but it does go with the territory



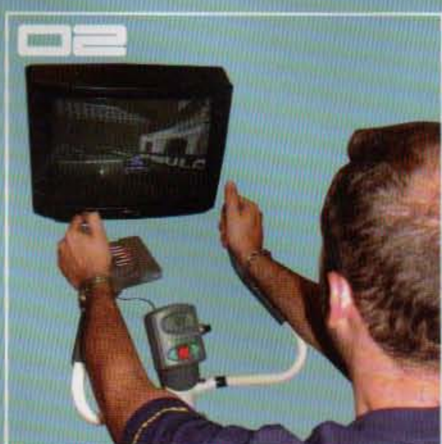




Out-of-shape gamers will have the opportunity to fight their ever-expanding waistlines playing *RRV*



PC specs have never been so much fun. Is this the absolute pinnacle of geek entertainment?



01 Philips unveils wired wear

UK: Following Stone Island's dalliances with MP3 player-equipped jackets last season, Philips and Levi Strauss have joined forces to weave magic in the form of the Industrial Clothing Design brand. Dubbed ICD+, the Massimo Osti-designed range of four jackets is a strictly limited edition run of 600 pieces, each containing a Philips Xenium GSM mobile and Rush MP3 player. Both units are to be controlled from a single remote control woven to a network in the jackets – which are available now from around £400. The item's one-stop-shop appeal to the mugging fraternity is doubtless without bounds.

02 Gamers get on their bikes

UK: If inventor Steve Croston has his way, gamers will soon be able to banish any fears about the effect of an overwhelmingly sedentary hobby on their health. Aiming to hit the demographic sweet spot of middle-aged dads who are hitting mid-life crisis and their gameplaying kids, he has developed a prototype controller for the PlayStation based on an exercise bike. Four years in development, the device enables players to cycle round – for example – *Ridge Racer V*, though he has yet to find a manufacturer for the unit. Whether it will encourage hardbitten city types to compete even more in the gym is another matter. **Edge**'s guest tester certainly wasn't enamoured by the beast.

03 Evesham shows ultimate PC cards

UK: They may not offer the complexity of 'Magic: The Gathering' or the collectability of *Pokémon* trading cards, but Evesham's new Tech Trumps range will delight PC-heads everywhere. Though manufactured to promote its new Origin and Evolution range, the card game can generate a serious amount of competition. But which is better – 2 x SBS52 speakers or 2 x Zy-Fi speakers?

Data Stream

Number of copies of *Samba de Amigo* Sega is shipping to the US: **30,000**
Number of maraca controllers Sega is shipping to the US: **10,000**
Number of subscribers who signed up for Alta Vista's unmetered service since June: **270,000**
Number of users who actually used the service: **0**
Sega's predicted Dreamcast unit sales for the financial year: **4.9m**
Actual Dreamcast sales worldwide: **4.6m**
Number of PlayStation2's sold since the console's launch: **three million**
Number of PlayStation2 units Sony expects to sell worldwide by March 2001: **10m**
Damages paid by MP3.com to Sony Music Entertainment over copyright infringement: **$270,000**
Name of Namco's forthcoming RPG for PS2: **7**
Increase in nVidia's revenues for its second financial quarter: **118%**
Product Riot Entertainment is to develop for WAP mobile phones: **X-Men: The Wireless Game**
Presenter of the best dance video at this year's MTV awards: **Ulala**
Year in which Dungeons & Dragons was first published: **1974**
Average age of D&D dungeon masters: **25**
Average age of D&D players: **23**
Percentage of D&D players that are female: **19**
Number of videogames in development that are based on D&D's Forgotten Realms campaign setting: **four**

Grail of gaming unearthed

US: Published in 1981 by Bantam, 'How to Master the Video Games' is perhaps the first tips book in existence. Though the tome offers sage advice on how to crack classics such as *Phoenix*, *Battlezone* and *Gorf*, the pages also include exercises on improving hand-eye coordination. Improving finger muscles and reflexes couldn't be easier – merely rotate a digit around a doorknob for one minute before asking a friend to drop pens from several heights. Ah, the joys of car-boot sales.

Midas horses around

UK: Some might scoff at Midas Interactive's efforts to tap into the most niche of markets but **Edge** cannot help but praise the dressage disciplines in *Equestriad 2001*. Though grooming and tying ribbons around your mount's tail have not yet been implemented, it will be possible to doff your cap to the judges in a polite salute. Is this the beginning of a *FIFA*-style franchise?

Control your own destiny

UK: The design of Nintendo's GameCube controller generated as much speculation as the machine itself. Small wonder, then, that Joytech is seeking to improve the art of this type of interface by inviting design students across the country to enter the Joytech Design Challenge 2001. The winner of the first prize will be given a 12-month placement at Joytech's development department and a trip to Hong Kong to see their design being manufactured. Entry forms must be submitted by October 13 and can be acquired from designchallenge@joytech.co.uk.

Soundbytes

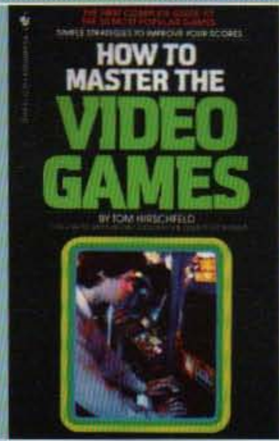
"Games are said to play to arcade standard"
The Sun offers its own special brand of PlayStation2 analysis

"Recreational videogames have the potential to help both children and adults with a variety of health problems – from concentration difficulties to physical stress"
NASA press release detailing new biofeedback research

"It's not really a virtual pet type of software, it's more like mind-control software"
Yutaka Saito describing his latest creation, *Seaman*

"When you are learning a difficult videogame, you should not be thinking about Bar-B-Q-flavoured potato chips. You must learn to channel your attention into the new world you have entered, be it outer space, undersea, or elsewhere"
Tom Hirschfeld in 'How to Master the Video Games'

"The design's a bit patchy. Two pages of silhouetted-out purple clip art? No thanks"
Web forum poster misinterpreting Sony's PS2 ads in E88 (pages 27 and 29) as part of the magazine's redesign





Arcade gaming in the early '80s was arduous stuff. Preseason training was essential to the professional



No, not a guide on how to deliver a low five, but early advice on improving your videogame reflexes



Just follow the dotted line at a canter before saluting the judge. Who said games for girls were clichéd?





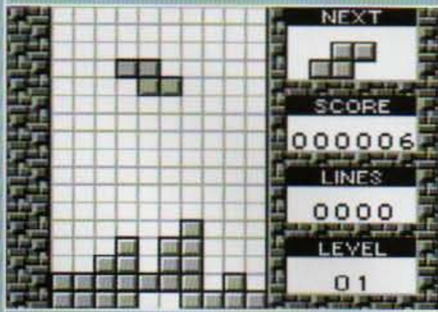




Win Joytech's compo and your creation could end up in the hand of a not-at-all-gratuitous model



Gamers will now be able to hide their Game Boy addiction behind a veneer of executive respectability



Building your business' future or shooting for a high score on *Tetris*? No competition, surely









Joins Sujoy 'Thunder Fingers' Roy and a bunch of other, er, distinctive types in a bid for the $300,000



Divine intervention in the form of angels guides you through the game, explaining level missions



You're armed with nothing more than the Solomon Sceptre, Moses Staff and – of course – your faith

07 Palming off the Game Boy

UK: Such is the Game Boy's popularity that BacklitGames decided to spend an entire year writing an emulator for the machine in *C++*. *Goby* can be downloaded from its Web site for £15 and will run on any palmtop using Symbian's EPOC Operating System. Though authentic Game Boy audio isn't reproduced, *Goby* offers added extras such as resolution functions, auto save and magnification options. The really devoted can even call up a bitmap image of its border.

08 Game tournaments grow

Korea: Dong-Woo Kim, aka 'Fingers of God', and Britain's Sujoy 'Thunder Fingers' Roy are just two of the high-profile competitors entering the largest international game tournament ever staged. The World Cyber Game Challenge will take place in Seoul from October 7-15, and the winner can expect a cash prize of $300,000 (£202,000). Battletop.com is organising qualifying heats at the Millennium Dome from September 9. Those with nimble fingers and a suitably hip-sounding pseudonym should contact the company's Web site for more details.

09 Gaming's new religion

US: Currently endorsed by 28 national ministries in the US, *Catechumen* is a biblical firstperson shooter from N'Lightning Software Development set during the reign of Caesar Nero. Players take on a newly catechised initiate who must protect the Christian faith from persecution, armed only with the likes of the Solomon Sceptre and Moses Staff to convert the heathen Romans. The Angelic Host seems to offer little assistance other than to sing a chorus of 'Hallelujahs' when a soul is saved. Is this the future of Christian entertainment? Is the Pope a Catholic?

Continue

A new *Metroid* on GameCube
Just hope it doesn't take four years to develop
Cubic hardware
First Apple, now Nintendo: straight lines are the new curves
Namco's Pac-Man beach balls
Worth buying *C&VG* for
Mating Seamen
In-tank sex-death shocker stuns office into silence

Quit

Infogrames 'Big Brother' videogame
It's going to be an 'arcade platform game'. *How* lame?
Videogame sensationalism in the tabloids
It's back, and it's talking about 'this Christmas' hottest toy'
Nintendo's GameCube console design
One half of the office loves it, the other still refuses to believe it
Seaman's American tongue
Adopting a Yankee twang is no laughing matter

10 Dervish Is Digital

Since William Gibson's seminal overture 'Neuromancer', every cyberpunk author has looked for original angles on the 'day-after-tomorrow' world of cyberspace. In her new novel Pat Cadigan, two-time winner of the Arthur C Clarke prize for science fiction, searches in the basements of the cop-shop thriller genre and offers up this 'Hill Street Blues' tale, cyber-style.

Detective Dore Konstantin, chief officer in charge of the TechnoCrime, Artificial Reality Division, is trying to get to grips with reality, and it ain't easy. Spending half her working life jacked into AR chasing down pirates, code smugglers and stalkers, Konstantin can't shake that 'unreal feeling' – a kind of jetlag of the psyche – which plagues her every time she unplugs from the virtual world. The disorientating condition develops into much more of a problem when Hastings Dervish, a psychotic hacker-millionaire, turns cyber-stalker. Dervish seems to have swapped his mind with that of an artificial intelligence from within the network and, literally, turned digital – attaining god-like powers in virtua.

As if that person shift isn't enough of an 'unreality' check, in comes a detective from the Hong Kong cyber-police squad who likes to show up in AR as a nine-year-old child. Faced with these unsavoury characters, it's easy to sympathise with Konstantin's problem: everyone lies in AR, so how do you get the truth?

It's a rambling novel, and a long chase after the illusive Dervish. Cadigan tempers her techno-lust with humour, but it's the kind of stuff you'll smirk or wince at, not split your sides. At one point Konstantin's superior says: "Take my advice, don't admit to anything." This novel takes little perseverance, but ultimately it can hardly be described as a worthwhile exercise.

11 Robo Sapiens

Robo sapiens: 1. A hybrid species of human and robot with intelligence vastly superior to that of purely biological mankind; began to emerge in the 21st century. 2. The dominant species in the solar system of Earth. This definition, extracted from Menzel's fantasy 'Microsoft Universal Dictionary, 2099', is the warning message that rings throughout this fascinating book – a potted biography of robotics at the dawn of an age.

Menzel and D'Aluisio don't trust robots. In this comprehensive, thought-provoking study they set forth into the world's most advanced research labs to discover the state of the art in commercial and recreational robotics, talk to the creators, and imagine the future they are building. The 160 colour photos that illustrate the book are, alone, well worth your money. There are walking, swimming, crawling, crabbing, stair-climbing, talking, learning, face-making robots of every shape and form. But the technical advances are only part of the book's agenda. The authors challenge the engineers and scientist they meet to argue their motives and moral responsibilities of their creations.

They photograph hundreds of robots in Japan, Europe and the US, from the comic 'Safety Sam' (a traffic-police robot in Tokyo), to the amazing robo-insect Unibug 1.0 in the Colorado Rockies. Kris Pister, Rodney Brooks (father of humanoid robot 'Cog'), Fumio Hara and Toshio Fukuda (he makes robot apes) are some modern-day luminaries interviewed. Whatever your views are on the future, their thoughts are worth reading.

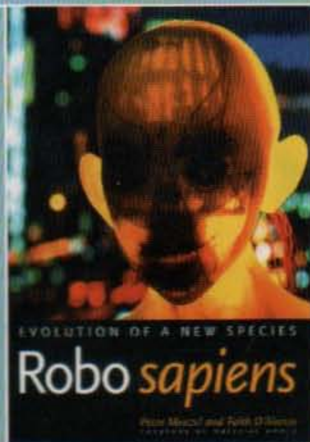
10

Author: Pat Cadigan
Publisher: Macmillan
ISBN: 0333779533



11

Author: Peter Menzel & Faith D'Aluisio
Publisher: MIT Press
ISBN: 0262133822



12



Site: **Screen$**
URL: **users4.50megs.com/alaggan/zxscreens/**

12 Web site of the month

UK: Some people collect stamps, others coins. But Andrew Laggan hoards loading screens from yesteryear and makes them available via his homepage, Screen$ (ex-Speccy users will recognise the term as the file format for such images on the 8bit computer). The pics – which sat on TV and monitor screens for the three or four minutes it took games to load from cassette tape back in the day – provide a fascinating snapshot of the videogame industry when it was at its most shabby (see the pic that accompanied Mastertronic's *Streaker*), its most obscure (who remembers *L'Oeil de Set*, for heaven's sake?), and its most creative (see most of Dave Thorpe's work for Ocean, including the likes of *Head Over Heels*). A totally absorbing site for lovers of the obscure.

13



13 Advertainment

Japan: Digicube, one of Japan's largest retailers of videogames (it is the the ecommerce medium for Square and its Play Online strategy, and it was responsible for the majority of *Final Fantasy IX* sales), has seen its traditional sales lines reducing, so it has embarked on an initiative to promote DVDs.

01. Ad opens on bedroom scene. Woman (standing): "Ow! Who is this woman?" 02. Man: "Is there someone?" 03. Woman (standing): "Yes! Just by the side of you!" 04. Man: "Which woman?" 05. Woman (standing, now very aggravated): "Her!" 06. Man: "I think you've watched 'The Sixth Sense' a few too many times!" 07. Voiceover: "'The Sixth Sense', at last available on DVD!" 08. Promo ends on logo



REDEYE

Commentary from inside the videogame industry

Start-ups: smoke, mirrors and cynicism

Marty Harrington paused outside the doors and took a deep breath. Was he sweating? This was the make-or-break moment for his new development studio. The two investors stood at his side, chequebooks concealed somewhere within swish tailoring. They raised their eyebrows. Suddenly he realised that not only the studio was on the line – this was make-or-break for himself, too. Thus unorthodox methods were fully justified. He exhaled.

"Gentlemen," he said, opening the door. "Shall we?" The room was a hive of activity. "This is what we call the 'red hot core' of Volcano Productions," Harrington tittered as he ushered the suits into the open plan office. "We can talk the talk all day, but these boys make it happen." He coughed and looked towards a girl at the nearest desk, who stared impassively into her screen.

"Well, you don't hang about," said a suit, impressed. "You wouldn't believe how many 'start-ups' I see that haven't even left their old jobs."

The second Paul Smith-wearer chuckled. "Exactly. 'GreatGamesRUs@hotmail.com' and a contact number from Orange."

"Now I take getting an office together as a signal of intent," agreed Paul Smith senior. "Of course, most developers can't tie their laces, so you can't expect too much."

If the staff of Volcano Productions were offended, they didn't show it. All but one – a scruffy chap surrounded by 'Star Wars' figures – ignored the visitors. They stared into their screens, clearly lost in their work. Harrington draped his arm around the nearest guest. "Back to my office for a swiftie?"

"Swifter the first, the sooner the second," he replied. But before Harrington could stop him, the other suit was heading towards a desk. "Excuse me, but what are you working on?" he asked an unusually healthy looking coder. Marty's grin was fixed, his grip on the suit's shoulder tightening.

Suddenly, the scruffy man stood up. "He's working on maps for *Scooter Circus*, our first game," he said as he walked towards them, extending a shaky hand. "Sorry – we're a bit focused today. Mike Gray, technical director."

The questioner shook his hand like a schoolteacher. "*Scooter Circus*, eh? That the Yank game, Marty?"

Marty coughed, and released his Vulcan grip. "Er, yes, well, to be honest we're not really sure who'll we go with yet. Lots of interest. Actually, it's a bit of a work in progress. The landscape is constantly shifting at Volcano." He owed his dishevelled lead programmer – his only programmer – a drink. "You know, fluid like lava – and red hot."

"Riight," drawled the suit.

So, *Scooter Circus* was a 'project' rather than a product in the boss' eyes, the scruffy man mused, as he circled the now empty office on a silver scooter. The student actors and the rented equipment were gone, and Mike Gray actually missed them. True, it had been like working in an episode of the 'Twilight Zone' populated entirely by Gap staff, but that was better than working in a 1,500-square-foot office populated entirely by him and Harrington. The old programmer saw that he had been suckered just like those investors. Harrington had convinced him that Volcano Productions would become the new Bullfrog or id Software, but it was clearly the latest shaky rung on the head man's laborious descent towards the bottom of the industry. Sad.

The long-forgotten joy of his first job in the industry had given way to a cynical secret: he had never completed a game

Gray had read about Marty in *Zzap!* when still a kid, and *Harrington's Way* was the game that had inspired him to make games himself. But in the big-budget 3D age, Harrington wasn't just a dinosaur in an industry of twentysomethings – his mind was prehistoric, too. He wasn't the man he once seemed – but then neither was Mike Gray. The long-forgotten joy of his first job in the industry had given way to a cynical secret: he had never completed a game.

It wasn't his fault. He initially worked for an electronics conglomerate on its 'TV-computer' that swiftly became a 'multimedia centre' and then a multiformat 'nerve centre' as technology ate itself in the early '90s. None of the machines made it to the shops – an ominous portent. Still, he'd been thrilled to move onto a company founded by elite Dutch demo coders to create what was to be the Saturn's finest hour. Sadly, the publisher thought the Saturn's finest hour had already passed and – 18 months in – it pulled the plug. Next up, a big sports game developer, but it wasn't big enough and it was acquired by a French concern which didn't fire anyone, but instead spent six months driving them into leaving out of sheer boredom. Gray's approach subsequently became more proactive. At the slightest sign of trouble, he'd jump ship. The strategy worked – he got the fun of design without the pain of the crunch. He also got a pay rise. So he started jumping at the slightest sign of a better job.

Nevertheless, he had been excited by the new position as technical director of Volcano Productions. With Harrington's still quotable profile and his own experience – albeit unconsummated – Volcano had held real potential. And he would hardly cancel his own game.

Harrington passed the programmer a sweaty Kronenbourg and waited for his Guinness. "Look, I'm as disappointed as you are, Mike, but you know the trouble we've had securing backing. How many two-bit developers have those guys seen over the last couple of years? And no one has signed a stick-it-in-a-box game since Mucky Foot or Elixir."

"But WAP, Marty? A 'roaming entertainment destination with broadband-ready portal potential'. what the hell is that?" The programmer shook his head. "Bollocks is what."

"A gravy train is what it is," Harrington retorted. "If I sign that deal, we're looking at £1million upfront for changing our name to Volcano.com."

"And how long will that last us when we're hiring a dozen students every time the investors turn up to have a look under the lid of their little incubator?"

"Forever," smirked Harrington. "You don't actually think that I paid those bozos do you?"

"So, what compelled them to sit there for two days? Your charisma?"

"Sort of," said Harrington, with a hint of real sadness. "I promised them sexy jobs in the industry."

RedEye is a veteran videogame journalist. His views do not necessarily coincide with ***Edge****'s*



TRIGGER HAPPY

Steven Poole

Environments: capturing the real world

Videogame environments have become ever more graphically dazzling over the last five years, but we are only just beginning to see the first shoots of true maturity in their design. It has long been important, of course, to make environments look pleasing. The first two *Tomb Raider* games were artistically successful, arguably more for their architecture than for their heroine: the real hook was the constant jolt to our sense of aesthetic wonder, induced by some of those rooms.

The spatial and textural beauty of good videogame environments acts as a kind of reward system, motivating the player to try to reach the next architectural masterpiece. But there is a lot of laziness in environment imagineering, too – a handful of visual templates, slavishly copied from cinema, get endlessly borrowed and reworked. Do we really need yet another H R Giger-style biomechanoid ship interior, all black–green ribbed curves and slime? Do we really need more stony dungeons with sweating walls and naked-flame lighting? Why such laziness and repetition? Well, certain visual styles automatically convey certain useful atmospheres. The visual cannot be divorced from the visceral.

Giger's widely copied biomechanoid style, for instance, evokes modern man's technological ambivalence. You are a biological organism (Joanna Dark, Jean-Luc Picard, Ripley) fighting the unnatural marriage of biology with machinery (the Skedar, the Borg, the Alien), yet you have to use machinery, both the PC or console and the ingame weaponry, to accomplish your mission. This subtext contributes to the aesthetic style's pleasing tension and paranoia.

Equally suggestive is another popular environment type: the warehouse. The idea of a warehouse represents the forces of global commercialism, with its stacked and packed industrial goods. Against such impersonal forces in the real world, an individual is helpless. In a videogame, however, you are decidedly not helpless: you are in full, immediate control of your destiny, even in the belly of the capitalist beast. The paradigm of the warehouse shootout, then, offers a neon-lit celebration of humanist power.

As well as such buried political messages, an environmental style also incorporates a particular set of dynamic possibilities. You can texture a warehouse in moody gunmetal greys and bas-relief, and you can light it dramatically, but, frankly, a warehouse is still not that visually arresting a place. Conversely, especially when it is full of rectilinear stacks of crates, it makes a great hunting and sneaking environment, as *Metal Gear Solid* shamelessly attests.

The dynamic logic of the space is crucial. Indeed, in some games the experience of prettiness forcibly vanishes after about five minutes. The futuristic medievalism of *Quake III* – all vaulted stone arches and crazed rainbow lighting – is rapidly betrayed and made redundant by the speed of the game: stop to admire the view and you're toast.

So environment designers already have to negotiate the three axes of visual beauty, atmospheric implication and dynamic logic. Now, the power of next-gen consoles and PCs offers two further fascinating possibilities. First is the recreation of real spaces for the player to romp in. *Metropolis Street Racer* and *The Getaway* both promise accurately modelled sections of London, but there is no reason why it should stop at driving games. The crude examples of *Tomb Raider II*'s pseudo-Venice level, and *TR3*'s pseudo-London Underground environments, give only a hint of the drama to come. The *Quake III* engine has already been licensed by UNESCO to create a virtual tour of Notre-Dame Cathedral. And the real world is a near-inexhaustible source of such beautiful spaces.

The sheer beauty of good videogame environments acts as a kind of reward system, motivating the player to reach the next masterpiece

Importantly, this approach will be one way for designers to sidestep the tyranny of sci-fi cliché. The idea of stalking enemies around the Tate Modern gallery, or one of the astonishing new Jubilee Line stations at Westminster or Canary Wharf – these modern cathedrals of light – is infinitely more attractive than another bloody set of steel corridors. Certainly, aspects of real spaces will often need to be 'tuned' to accommodate gameplay considerations, but in order to break moulds, designers ought also to attempt the process the other way round – choose a beautiful space, and imagine what kind of new gameplay opportunities it can host.

The other revolution in environments will be one of functionality. Traditionally, solid-looking environments have been rather stupid illusions. Textures slapped onto wireframe geometry don't 'know' how to behave, which has given rise to functional and causal incoherence. A rocket-launcher won't harm a wooden door; an enemy won't bounce off a wall but merely sticks to it. Now, I have spent many a happy if totally pointless half-hour in *GoldenEye* or *Perfect Dark*, having failed a mission objective, simply going around shooting out glass panes or spotlights. And as environment behaviour becomes more coherent, so that every light can be shot out, every weak door blown up, we as gameplayers will have an evermore persuasive sense of being free agents in the digital world. As our freedom increases, of course, the political and moral dimensions of the gameplay can grow.

Dead or Alive 2 laudably allows you to smash your enemy through windows or throw her off ledges: strategic opportunities are thereby increased, as they bleed into the use of the space itself. The Geo-Mod engine of Volition's upcoming FPS *Red Faction* may well be a seminal development here. Shooting a rocket-launcher into soft ground makes a trench that you can hop into for cover? Outstanding.

Too often today, the experience of playing even a top-flight videogame is one of second-guessing the designers. At the moment, you consider an option – say, destroying the glass case around a switch with a grenade – and then you reflect: "No, that won't work, because the gameworld doesn't work that way." The ideal is for you to be thinking: "No, that won't work, because the real world doesn't work that way." Now, that will be progress.

Steven Poole is the author of 'Trigger Happy: The Inner Life Of Videogames' (Fourth Estate, £12)



profile

Videogaming's movers and shakers

John Pickford

Creative director, ZedTwo Game Design Studio

The company name ZedTwo is spelled out, rather than written 'Z2', in order that Americans may not mispronounce 'Z' as 'zee'. This is typically whimsical of the quirky, Manchester-based outfit, headed up by Ste Pickford (see p156) and his brother **John**, who still gets his hands dirty coding while sitting under the title of creative director.

Those familiar with Mastertronic's 8bit output in the '80s will be familiar with his early coding efforts as part of Binary Design, such as *Zub* and *Amaurote* – games whose quality sat at odds with the label's 'cheapo' reputation. He went on to set up Zippo Games, which started out producing 16bit Amiga/ST games such as *Cosmic Pirate* and *Voodoo Nightmare* before hooking up with Rare, which switched the team on to the potential of NES software.

"That was the real real turning point," Pickford relays. "They really taught us a lot about game design. It was a revelation to us that NES games were fully fledged consumer products. They were actually tested; players actually expected to finish the games. Games had to be fun and bug-free. It seems crazy now, but back then I think we were all writing games for our own satisfaction or to show off some clever idea. If a game turned out to be fun, it was probably more by accident than design."

Parts two and three of the *Wizards & Warriors* series, plus *Lunar Jetman* and coin-op conversion *Cabal* all followed on the NES as part of the Rare deal before Software Creations came calling. "I was approached by them and offered the chance to work on the SNES," Pickford remembers. "They had the only dev kit outside of Japan so it was a pretty exciting prospect. I remember that NOA even visited because they hadn't seen a SNES at the time."

Equinox, the much-lauded sequel to the isometric-viewed NES adventure *Solstice*, followed before the Pickford brothers began work on *Plok!*, a supremely accomplished SNES platformer whose existence, unfortunately, became overshadowed by such me-too fare of the day as *Bubsy The Bobcat*.

Corporate stiflings eventually took their toll, and Pickford began to explore more immediately gratifying avenues. The result was ZedTwo and puzzle game *Wetrix*. "This was the hardest game to design I've ever been involved in," he admits. "With a puzzle game you have nothing but gameplay – it has to work. If the game is weak, the graphics won't help, and you can't just throw in a few extra enemies if the game is too easy. You have nothing but the naked gameplay, and that means the underlying concept has to be right. Each and every feature has to interact with every other feature in the game."

Now 33, Pickford is putting the finishing touches to *Aquaqua* (see p42), which takes the *Wetrix* concept and translates it for PlayStation2. ZedTwo remains stubbornly focused on what makes videogaming tick – fun – but the company is now embarking on a number of super-ambitious projects. Like many coders who've been around since the halcyon days of the '80s, Pickford is content that today's landscape is a healthier one, but concedes that "the only real downer is the difficulty in getting an original idea off the ground." With his track record, this is an especially sobering sentiment.

Incoming electronic entertainment from across the globe

Edge's most wanted

Shenmue

When the US version ships on November 14 it should be one of the must-have titles for your Dreamcast. Absorbing, mesmerising and oddly compelling.



(DC) Sega

Mujura's Mask

It won't have the impact of *Ocarina of Time*, but Miyamoto's sequel to the best game on the N64 is an entirely new prospect requiring replay upon replay.



(N64) Nintendo

Hundred Swords

An intriguing RTS which enables four players to go head to head in a fight for supreme dominance. The Dreamcast version will have a glut of online options.



(DC) Sega

Ultima Worlds Online: Origin

EA is hoping that the complexity of its online universe will encourage social activities alongside the traditional questing. One to keep an eye on.



(PC) Origin

Story bored

Losing the plot in favour of gameplay

Having the opportunity to enter the heart of Sony's Soho studio to take a glimpse at *The Getaway* (below; see p52) was revealing in several ways. Apart from the impressive attention to detail there was one aspect which stood out as being slightly overworked: narrative. Employing two full-time scriptwriters and storyboard artists has its advantages. The plot, it must be hoped, will link the game sequences together in a cohesive manner and drive the player onwards towards their ultimate goal.

However, taking a look at the copious amounts of storyboarding which details every single character movement and action sequence, alongside the bundles of script which will dictate the flow of the cut-scenes, gave cause for concern. This is an obvious point, but it needs to be made: FMV sequences are not interactive. They do not constitute gameplay, and rarely overshadow the game proper. Being brutally honest, even the cut-scenes of *Final Fantasy VII* can drag on interminably. Cry at the death of Aeris Gainsborough? Most gamers were more likely to wail with despair at the 30-minute wait between save points.

Clearly, some games lend themselves more readily to narrative input than others. There's little point in a developer breaking up the flow of a puzzle title with some tenuously related plot device. *Driver 2*, however, like *The Getaway*, will contain sequences detailing Tanner's progress in the game. Reflections' first *Driver* game opted for an ambitious, tiered narrative structure which branched off at several points, and the extra work needed to create these optional sequences saw a reduction in quality of the overall FMV. Feedback confirmed that players literally lost the plot and exited the cut-scenes to get straight back to driving.

The fact is that narrative can be a stifling influence on the flow of a game. When designers decide to place FMV sequences in your game then they are seriously curtailing your freedom. The more narrative unveiling there is, the more likely it is that your videogame experience will be on rails.

If you review **Edge**'s top 100 games (**E**80), you'll note that the leading 12 games feature either zero FMV or incredibly brief cut-scenes. Even *Half-Life* (at number nine) delivered its narrative either during player interaction or in short blasts between levels. Confirmation that, as in *Zelda: Ocarina of Time*, the best games are those where the player feels some freedom to search out their own destiny.







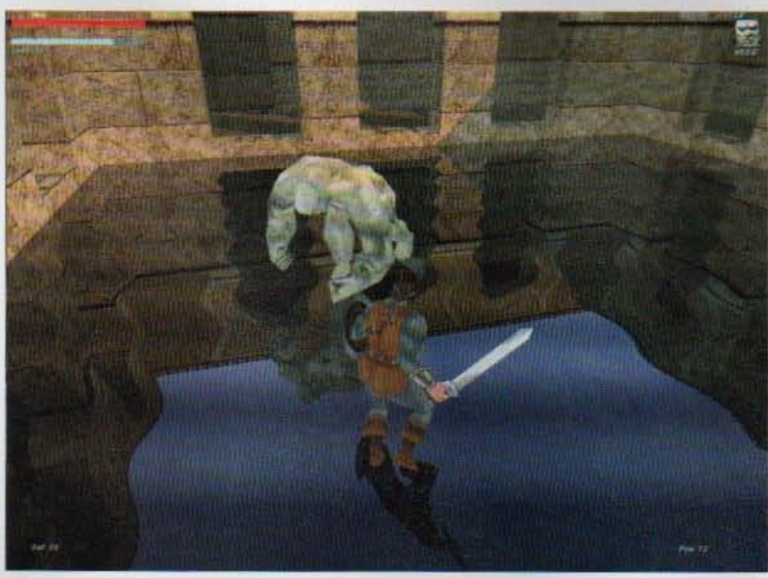




Severance

RebelAct's gore-soaked action RPG may win column inches for its no-holds-barred depiction of battle wounds, but the game's underlying worth remains open to question









The light sourcing is even more striking when there's water around, generating stunning reflections. On the gore side of the *Severance* coin, if your character is injured in the water, their blood will diffuse into the liquid

As mentioned in last month's Testscreen intro, for a game to score highly in **Edge** it must push the envelope of its genre. Often this means testing the limits of the host machine (*Alien Resurrection*, reviewed this month on page 94), but sometimes not (*Mr Driller*, **E**87). What both games have in common is that they distil elements of others into an addictive mix, while being sufficiently innovative to avoid being derivative. Regardless of high polygon counts or massive texture sizes, one thing remains true: the playing experience is everything.

Severance: Blade of Darkness, previously simply titled *Blade*, is an action-based RPG whose tone is similar to a violence-crazed crossbreed of *Ultima IX* and *Gauntlet*. Locations as varied as monasteries, volcanoes, and underground cities make up the 18 levels of challenge. Despite the variation in the look and feel of the areas, each is based primarily on the slaying of evil minions, and culminates in the arrival of a boss who must be defeated in order to progress. So far, so *R-Type*.

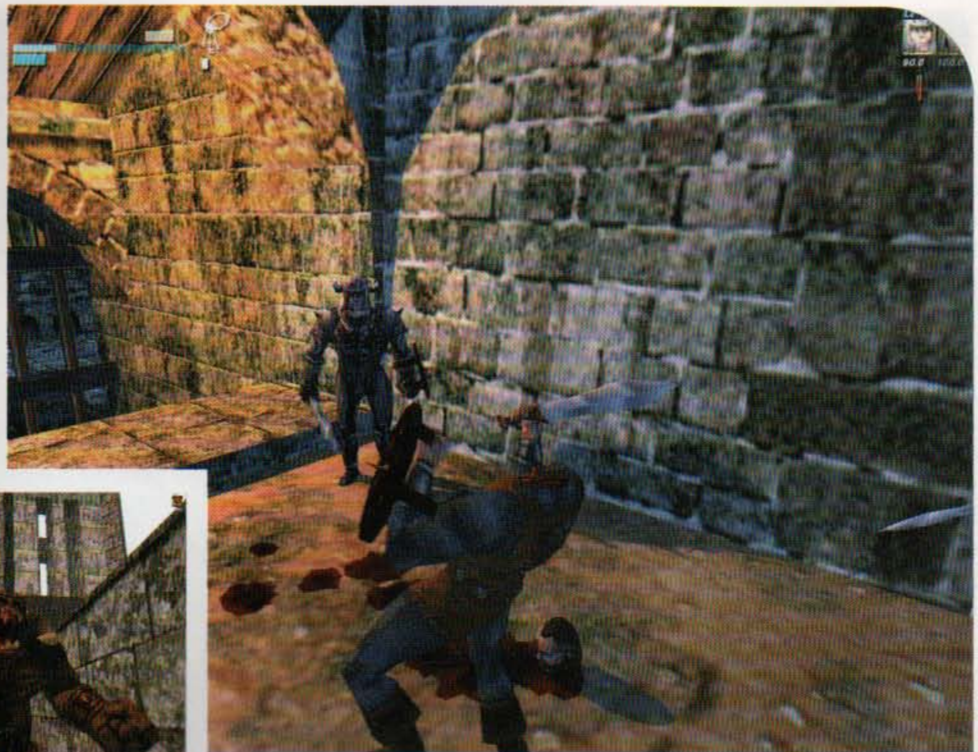
There are four characters – knight, dwarf, barbarian, and the ubiquitous amazon – available for selection at the start of the game, and, as you would expect, each boasts their own abilities. More unusual is that each begins with a dedicated tutorial zone, leading into the linear stream of levels that follows. This is designed to give the player a non-repetitive way of trying out each character and finding out which is more suited to particular styles of play, and doesn't promise to add to the replay value. However, the developer promises that playing through as a different character will offer a different experience, both in combat and in solutions to the simple puzzles on offer.

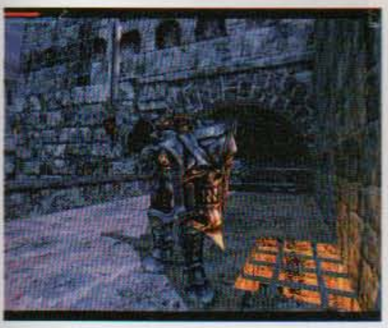
Though *Severance* doesn't contain a traditional D&D advancement system, the strength of your character and his or her level increases with your kill count. Levelling is particularly important, because progression reveals special combat moves and the key sequences needed to execute them. Fighting, extended by the system of special moves, is carried out with two buttons, one for attack and another for defend. With good timing, attacks can be concentrated on particular parts of an enemy's body. Experienced players will be able to knock the shield from a rival's hand with a well-aimed blow, or – and this is where the hype surrounding *Severance* lies – slice their arm clean off.

Your character can both inflict and suffer

Format: **PC**
Publisher: **Codemasters**
Developer: **RebelAct**
Origin: **Spain**
Release: **November**









Enemies come in all shapes and sizes, but the humanoid ones are just as deadly as the more fantastical creations. One swipe from a sword and you can find yourself without an appendage – in this case, your head

horrific injuries, and almost all body parts are detachable with some persuasion from sharp weaponry, but so what? Admittedly, the level of violence is both unique and disturbing, but if all the publicity surrounding *Severance* concentrates on the bloody mess of deconstructed character models, then other parts of the game will suffer an injustice. Aside from being able to pick up recently severed limbs and using them as weapons, the bloodshed leaves the gameplay unaffected. In fact, this isn't even the most graphically impressive aspect of the game.

Carrying more impact and more style than a thousand dismembered goblin body parts, *Severance*'s shadows are astonishing. Torchlight renders the cartoon imagery with an otherworldly realism, but it's when the silhouettes start to dance that the engine really shows its power. Pick up a torch, and your shadow is projected behind you, laid onto the rock or snow or dungeon walls. Swing the torch at an enemy, and both his and your shadows swing too, as well as that of every other object within the torch light. It's an effect that, used smartly by the level designers, can lead to misplaced fear, when tiny, backlit enemies project monstrously huge shadows round corners.

Experienced players will be able to knock the shield from a rival's hand with an well-aimed blow… or slice their arm clean off

Aside from the main game, an eightplayer multiplayer mode places the competitors inside a gladiatorial arena littered with armour and weaponry. But, despite this and its occasional RPG pretensions, *Severance* is primarily a oneplayer action/adventure title. Whether it's going to be a great one is in the balance; there's no doubting that its graphical credentials mark it out as a contender, but it's worth questioning how much depth lies behind the game's façade of gore. For a title to be labelled a necessary purchase, it needs more than just a sparkling engine; the key to brilliance lies in a sound, inventive game dynamic, and it's here that *Severance* has yet to prove its cutting edge.



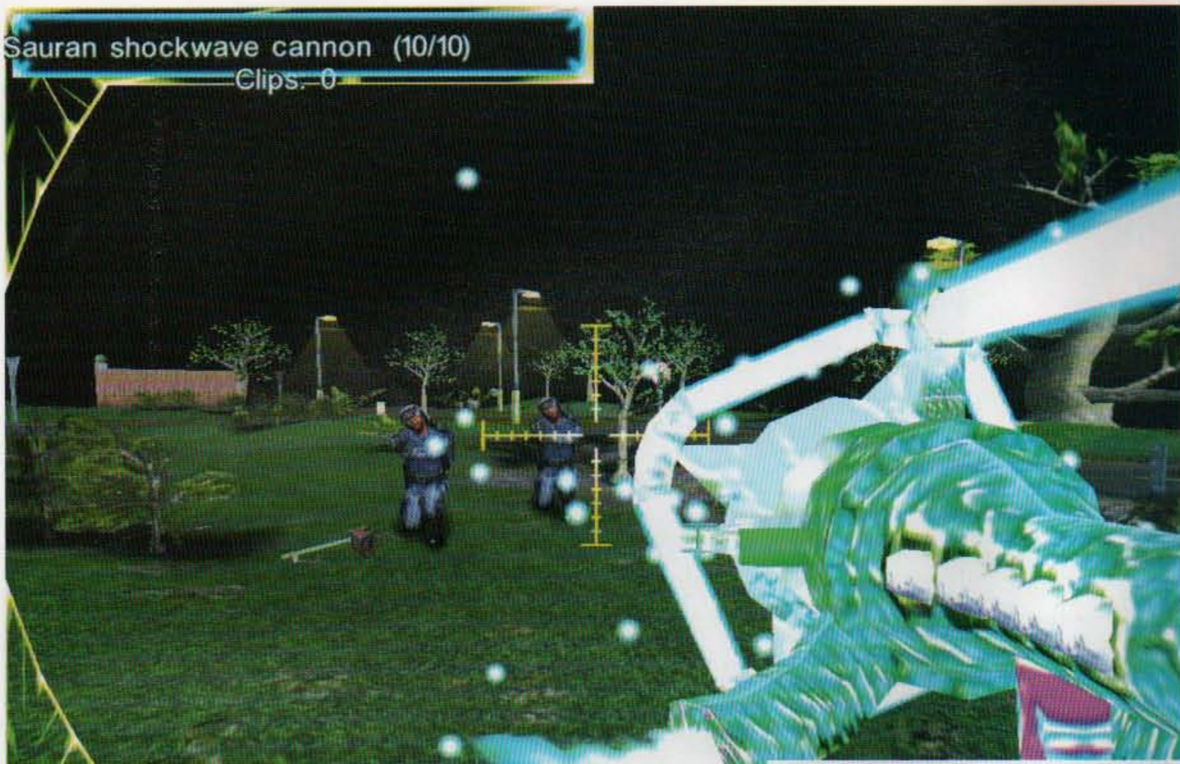


"It's only a flesh wound..."

Using a bloody limb as a cudgel might be a gimmick, but it underlines one of *Severance*'s other features. Almost any object you see in the game is open to abuse as a weapon, though deciding whether to use a shoe or a broadsword to bludgeon an enemy to death is more a question of deciding whether style is more important than substance, rather than one of common sense. Still, in eightplayer mode it offers new and exciting methods of humiliation, the main principle of many multiplayer games.

The Dreamland Chronicles: Freedom Ridge

Not only have alien forces invaded Earth, they've taken the place over. The time has come to build a resistance force to overthrow them, and you're the one in command











The missile launcher (above) may seem like a good idea, but when you fire a weapon of destruction in an urban area, you're asking for trouble. Besides conventional weapons, Mythos has invented some alien firepower (top)

PC games that totally redefine their genre are few and far between. In fact, once you wade through the me-too titles and marketing hype, there are only a handful of titles that are exceptional. One of these rare games was the DOS-based classic *X-COM: UFO Defence* by Mythos Games. It's no secret, however, that like many great franchises, *X-COM* has ultimately been watered down with sequels and uninspired spin-offs. Still, Mythos has been itching to do a true follow-up, and now, with a new publisher and a new engine, the company hopes once again to redefine state-of-the-art strategy gaming.

Much like the original *X-COM*, *Freedom Ridge* involves aliens – lots of aliens. "The storyline is based on the classic Earth invasion scenario and the copious amounts of UFO conspiracy stories that have been circulating for years," explains Mythos Games co-founder **Julian Gollop**. "The Dreamland mythology features prominently. Dreamland is the code word for the Area 51 facility in the Nevada desert where the US Government is alleged to have tested alien technology."

The game starts shortly after a particularly rapacious alien race known as the Saurans conquers Earth following a few months of intense, destructive warfare. Players are faced with the daunting responsibility of building a resistance force capable of overthrowing the invaders, and the keys to doing this are strategic planning and tactical expertise. "The full scope of operations is under the player's control," says Gollop, "from resource management to squad-level combat." So, while you start off with only a handful of resistance fighters (consisting of scientists, pilots and soldiers) you must win skirmishes with the enemy and build up your forces to eventually conquer the alien threat. There are about 25 different enemy types in the game, including robots, primitive creatures and even carnivorous plants. While some of the enemies will be new to players, others – like the mysterious Men In Black – will be recognisable to conspiracy theorists and 'X-Files' fans alike.

To fight these invaders you'll not only have to recruit new allies, but also discover new weapons and technology. There are more



Format: **PC/PlayStation2**
Publisher: **Bethesda Software**
Developer: **Mythos Games**
Origin: **UK**
Release: **Q4 2000**

than 50 weapons in the game, all with unique properties. The goal, according to the team, is to make players think about the tactical deployment of these weapons, instead of just always picking up the biggest gun.

The heart and soul of the original *X-COM* beats within *Freedom Ridge*, so strategy veterans will be familiar with the turn-based combat mechanics and strategy. The game does have a few enhancements that give it that extra level of realism, however. Your combatants will now be able to detect enemy forces by hearing, seeing and even smelling them. And the strategic part of the game includes more complex and integrated vehicle combat (**Edge** has seen Jeeps in the game, and tanks are promised too) and base placement than previous *X-COM* titles.

The most mesmerising aspect of the game is the groundbreaking physics model. Nothing is left to chance here; everything in the world is 'live'. "We have been working closely with Havok, [the physics engine] programmers, to put some cool features in the game, such as 'fracturing' of objects at various points, such as the base of a tree or the legs of a table," explains Gollop. "We can also simulate water, cloth and soft bodies. Injured characters will flinch and collapse like a rag doll when they are hit. Limbs can even be blown off and sent tumbling through the scenery."

What does this mean for the gameplay?

"Injured characters will flinch and collapse like a rag doll when hit. Limbs can even be blown off and sent tumbling through the scenery"

Well, if enemies are hiding in a house, you can take out a load-bearing wall (with a tank, if you like) and the house will collapse in on itself. Knock a simple hole in the same wall, however, and the house remains intact. Every object in the game has unique properties that ingenious players can use to their advantage. After checking out some interactions in a very early version of the game, one word comes to mind: astounding.

Freedom Ridge is definitely an ambitious title – no one has attempted tactical, squad-level, turn-based combat on such a grand scale and with such attention to detail. With both technology and gameplay on the developer's side, it looks like Mythos may have another legend in the making.

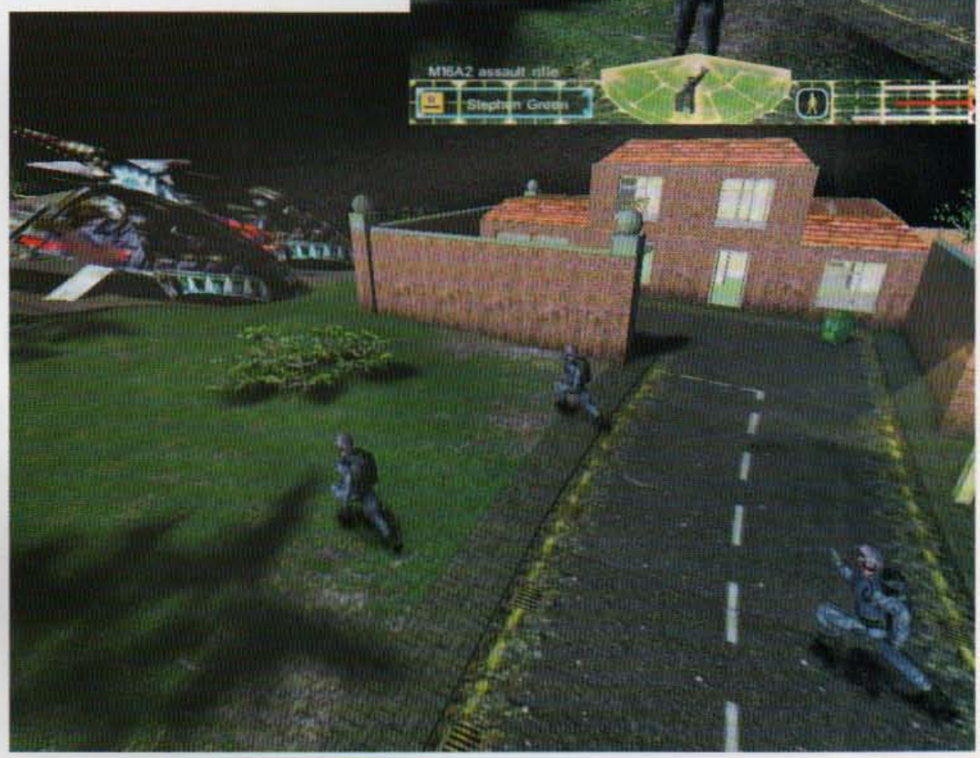




The game that started it all

While *X-COM* may not have the same connotations as it once did (the last game was a space sim and the next is a firstperson shooter), the *Enemy Below* version still managed to rank number 23 in Edge's list of the top 100 games of all time. Quite simply, the game did it all, even with the limited PC gaming technology available at the time: resource management, tactical combat and even a little bit of horror (there were some genuinely intense moments). Edge hopes Mythos is on the right track with Freedom Ridge, not only to recreate the experience of its superior classic, but to reinvent it with the new physics and graphics technology the team has available to it.





The tactical planning stage of each operation enables the player to move the camera around freely and get a good vantage point of the action (above). As the game is being developed with both PS2 and PC in mind, the interface should suit joypad and mouse control

Smuggler's Run

Format: **PlayStation**
Publisher: **Rocksta**
Developer: **Take Two Interactiv**
Origin: **U**
Release: **November 2**

Live the redneck dream courtesy of Take Two Interactive and transport questionable cargoes over the county line behind the wheel of the souped-up jalopy of your choice



Back in May, when *Smuggler's Run* was sharing showspace with countless other E3 hopefuls, it looked bleak. The graphics were bland, environments were barren, framerate was questionable, and its gameplay concepts, although good on paper, appeared unable to translate into the game proper.

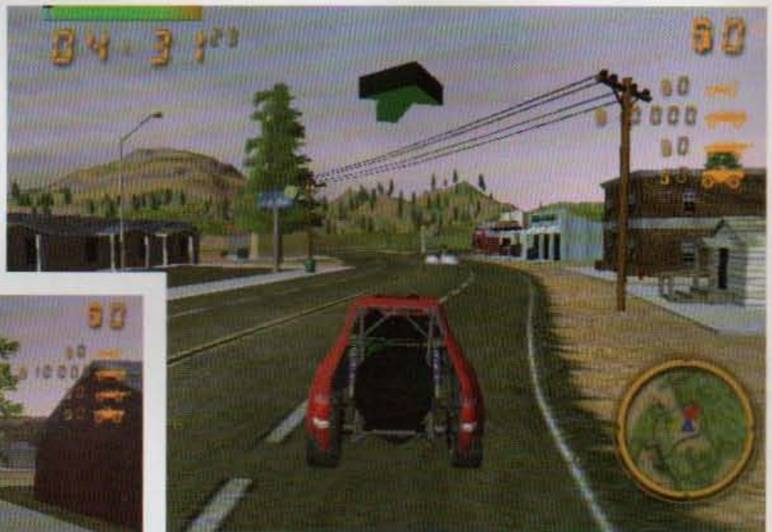
Some three-and-a-half months on, things have altered considerably. The most obvious improvement is visual. Texture quality has increased and the vast areas now boast far more distinctive features (trees, villages, animals, boulders, etc), making them more exciting places to motor around. The overall graphical quality may not knock you over à la *MGS2*, but the distance to which the scenery is drawn will certainly get many to sit up and pay attention. Make your way to the top of a hill and marvel as the camera displays scenery in all directions as far as the horizon. All the while the framerate remains doggedly constant at 60fps.

The main oneplayer game generally sees you smuggling contraband from one checkpoint to the next, preferably avoiding police, but free to flatten cows, deer and backpackers. Occasionally a race against fellow smugglers is organised to avoid monotony, or another variant crops up. For instance, later in the game you are offered the opportunity to smuggle as a gang, with AI stablemates providing support such as decoy or straightforward protection from the ram-first-question-later law enforcers. How you make your way between objectives is up to you – you're free to go anywhere you see fit, bearing in mind that the shortest route isn't always the quickest.

As well as completing the mission-based objectives, you can always drive around the environments with no fixed goal. Although you'll bore of this eventually, this could take longer than you'd think – driving up absurdly steep slopes in off-road vehicles always proves stupefyingly compelling. A little more action then can be found in the Melee option, with the added attraction that it includes a twoplayer element. Three styles of play exist: straightforward capture and deliver the case, a team-based version of the same, and a checkpoint race. The developer admits the AI is currently a tad over-aggressive, resulting in seven competitors relentlessly bending your chassis as soon as you've picked up the case. This is amusing at first, but a little tweaking would negate any frustration that could inevitably crop up in the long run.

A little polish on the handling model wouldn't hurt, but *Smuggler's Run* is by no means unplayable as it stands, although some more subtlety may improve it. Other than that, Take Two Interactive may have put together one of the very few titles worth owning when PAL PS2 arrives.







As in *Crazy Taxi*, floating arrows indicate the direct route to your destination, but taking this isn't always the best option, as the police or rugged terrain can hamper progress. Whatever happens, draw distance extends as far as the horizon, affording the adventurous fantastic views from high country





Cows, deer and even hapless backpackers can be crushed under the wheels of your butch road warric

Insane

Format: **PC**
Publisher: **Codemasters**
Developer: **Invictus**
Origin: **Hungary**
Release: **November**

As racing games continue to explore off-road avenues, Codemasters brings its own spin to PC petrolheads in the form of a dirt-hugging, multiplayer-focused extravaganza

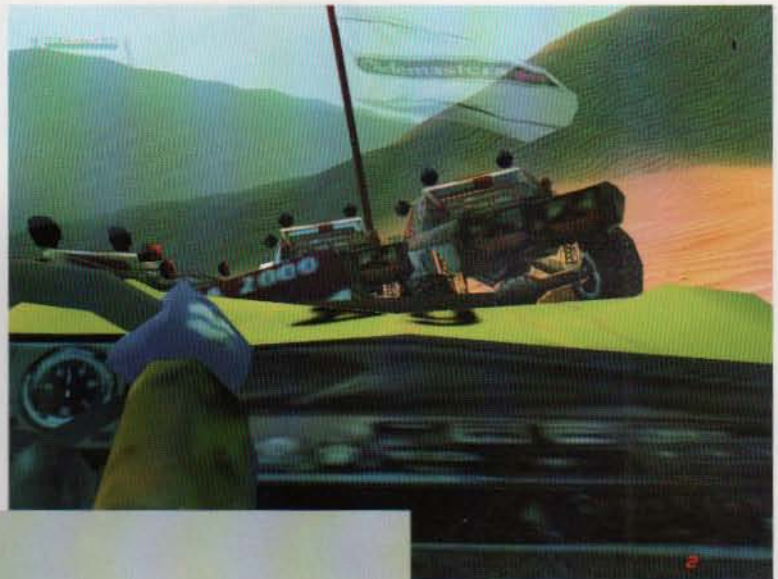
Insane is a racing game from Codemasters. Few surprises there, except this is an acquisition, developed far from Leamington Spa – in Hungary by developer Invictus. Originally a physics demo, the *Insane* engine impressed Invictus so much it built a game around it. The game, unsurprisingly, plays to the strengths of that engine, being a screaming race around, up, and across hills, and against gravity.

There are seven game modes in all. Gate Trail, Gate Hunt, Off Road Race and Jamboree are all based on passing through the checkpoint-style gates that litter the hills and valleys of *Insane*'s 20 pre-designed courses. On Jamboree, the gates light in order, and points are only scored by the first car to make it through each one. Gate Hunt sets a similar task, but doesn't specify which gate the competing cars should take first, and as such is a freeform scramble around the map to reach as many checkpoints first as possible. Off Road Race is the closest *Insane* comes to conventional circuit racing, the sequential gates carving a course loop in the hills. In Gate Trail, the gates can be taken in any order the player chooses.

Of the others, both Catch The Flag and Return The Flag involve retrieving a randomly placed marker and, according to the game mode, keeping hold of it or taking it to a map location. Finally, the Destruction Zone carries points for making your opponent roll, plus more for managing to stay on a huge 'X', the nominal destruction zone.

The 20 vehicles are split into five different classes: 4x4, sport, pickups, trucks, and extreme. The difference in handling and suspension between the classes is enormous, and the selection of an appropriate vehicle is the key to coping with *Insane*'s rolling terrain. Invictus has moulded 20 different landscapes, but in addition to them comes a fractal-based landscape generator. A single-number seed stretches the land into peaks and valleys of varying intensity, adds the roads, gates, and water level, and provides the player with a new arena to take into multiplayer.

A oneplayer mode exists, too, which enables the player to experience all the game modes in the company of computer cars of varying levels of intelligence. Winning races will unlock further areas to race across, but although this basic reward model seems neat enough, the stress here is firmly on multiplayer action. Level designers, while not promised, are expected, and Codemasters hopes that *Insane* will develop a strong Internet presence and community. If it can persuade enough PC owners to drop their traditional FPS, RTS, and sim-only outlook in favour of *Insane*'s hill-rolling arcade adrenaline, the plan may just succeed.









Insane's steep terrain means that rolling your car, even without opponents trying to knock you over, is almost inevitable. If you end up upside down, pressing and holding down a key will see it slowly roll upright, meaning your race can continue. Damage, too, can be repaired in three seconds, but the vehicle must be stationary at the time





Damage done

The oneplayer mode, while clearly not the focus of *Insane*'s bid for your attention, carries its own share of delights that aren't available in the multiplayer option. In particular, the landscape has far more objects that can be interacted with; animals roam the desert terrain and flee from your thunderous engine, and posts that are so static and solid in multiplayer can be knocked flying. In both modes of play, though, damage is both clearly visible – wheels impacted too hard can roll clean from your car – and feed directly through to how your vehicle handles.

Baldur's Gate: Shadows of Amn

Format: PC
Publisher: Interplay
Developer: Bioware
Origin: US
Release: September

Interplay offers up a sequel to its hugely successful AD&D-based game, which picks up where the last title left off and looks set to include a raft of refinements



The improved Infinity engine can cope with a more visually opulent array of magical effects, which is in keeping with the rarefied heights of power that characters can now reach, acquiring strongholds and familiars on their adventures









Players who were disappointed by the non appearance of dragons in the original may yet have their appetites sated, but Bioware has not yet confirmed anything



The overwhelming success of the first instalment in the *Baldur's Gate* series, which sold more than one million copies worldwide, has engendered a fan loyalty similar to the AD&D franchise upon which it is based. Expectations are high, then, for this sequel, particularly in the light of competition from SSI, which is also developing a title based on the D&D universe. For the uninitiated, Bioware's RPGs bear little relation to Japanese console titles of the same genre. There are no cute sprites, mah-jong mini-games or overlong cut-scenes, though narrative and character development is just as strong.

Shadows of Amn commences shortly after the denouement of the first episode, taking place in the Forgotten Realms universe. The action is ostensibly set in the merchant kingdom of Amn, though intrepid adventurers will find themselves traversing the Elven forests of Tethir, marvelling at the Cloudpeak Mountains, and navigating the Drow Cities of the Underdark. Initially, though, they will find themselves locked in a cage with next to no equipment, and have to escape fairly sharpish. Seasoned swashbucklers will be pleased to learn that characters can be imported from the original.

Thanks to an enhanced version of the Bioware Infinity engine, there are a number of refinements in place, including improved pathfinding, the option to annotate maps and journals, better inventory management thanks to gem bags and scroll cases, higher resolution, and a better-looking graphical interface. The most obvious difference though, is the sheer size of the game. Although it will be possible to complete in 50-60 hours if sub-quests are ignored, diversions can increase this to around 300 hours.

Many such distractions are thanks to a greater degree of dynamic interaction with NPCs through the game. Any which join your party have lives and goals outside it, and may leave to pursue them. Higher-level character development, in keeping with the AD&D mythos, also results in a number of missions, such as that of a Paladin to obtain a magical sword in return for pursuing a religious quest.

Indeed, the overall effect of the various refinements is to pack in even more of the complex rule set upon which it is based than its predecessor did. Players can choose from more than 40 character classes and kits, making the sequel a fitting swan song for second-edition AD&D, and a respectable preface to the third edition.

Second edition vs third edition

Although *Shadows of Amn* is based on the second-edition AD&D rules, Wizards of the Coast has just released the third-edition rules, giving the 26-year-old game a much-needed facelift and dropping the 'Advanced' prefix to eliminate confusion. Bioware's forthcoming title, *Neverwinter Nights*, will be based on the newer rules, as will SSI's *Pool of Radiance*, and it's likely that if Bioware decides to develop another instalment in the *Baldur's Gate* series, then it, too, will be based on the newer rules.

Star Trek: Voyager – Elite Force

Format: **PC**
Publisher: **Activision**
Developer: **Raven Software**
Origin: **US**
Release: **September**

Raven sets out its stall to extend the appeal of 'Star Trek' videogames beyond the series' hardcore fanbase by developing a firstperson shooter based aboard Voyager







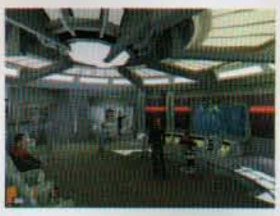
Multiplayer affords the opportunity to use one of many 'Star Trek' skins and features a *Quake III*-style oneplayer mode, with AI-controlled bots











Several smaller missions take place on Voyager, which is recreated in some detail. The bridge and the holodeck, in which newly discovered alien weaponry can be tested, are depicted left

Historically, efforts to adapt the successful formulae of the various incarnations of 'Star Trek' in order to win over the hearts and wallets of gamers have been cumbersome at best. Attempts to combine those elements that contribute to the success of the various series with gameplay that appeal to a wider audience have largely failed. But by adopting and tweaking an existing formula – that of the firstperson shooter – rather than attempting to start from scratch, Raven seems to be following the path of the celluloid originals, dodging the mistakes of other developers.

Which is not to say that *Elite Force* doesn't capture the feel of the TV series. The plot could have been lifted out of any episode, with Voyager and her crew lured to an alien starship graveyard in an uncharted region of space. As part of a newly formed Hazard Team under the command of Lieutenant Commander Tuvok, you take on the role of Ensign Munro and are sent on several missions to avert the threat of the alien entity responsible for Voyager's predicament.

Of course, the advantages of such a plot are that it allows the game to feature different environments and enemies, and it averts the threat of extinction of any of the show's stars. Standard missions are spiced up by the assistance of other team members, and are interspersed with stealth missions, while routine maintenance tasks afford the opportunity to explore Voyager.

The various environments in the game are populated by a mix of familiar enemies such as the Borg and Klingon scavengers, as well as newer races like the Etherians. And in addition to the standard-issue phaser and compression rifle, you have access to more exotic weaponry of alien origin.

Extremely well-detailed visuals are to be expected from the *Quake III* engine, as is a strong multiplayer mode that allows more scope for interaction with the better known members of the Voyager crew – though 'Star Trek' purists may balk at the prospect of having to shoot both Janeway and Tuvok. They may be swayed by the Seven of Nine skin, however, and the well-designed levels that are dotted with power-ups.

Elite Force will no doubt appeal to the legions of 'Star Trek' fans out there by capturing the spirit of the TV series, but it also looks to be shaping up as a title that will achieve wider appeal by adapting an effective engine to a well-designed example of a popular genre.

Star tracking

The cut-scenes throughout the game are of the highest quality, with virtually all the members of the original TV cast making their vocal presence heard at some point or other. As head of the Hazard Team, Tuvok – voiced by Tim Russ – has the most onerous duties, though the doctor also makes several appearances. The digital likenesses of the crew are also of a high standard, which makes the multiplayer game all the more compelling, as well as fleshing out the Hazard Team itself – though there are one or two characters who make even the crew of Voyager look positively three-dimensional.





Ready 2 Rumble 2

Format: Dreamcast/PlayStation2
Publisher: Midway
Developer: In-house
Origin: US
Release: November

Playful pugilism readies itself for battle on PS21 and DC as Midway's smash hit returns for further joypad punishment, complete with 14 new cartoony characters







The fighting principles of the original *Rumble* remain. Particularly powerful punches are indicated by glowing gloves. The rumble power-up has been extended – collect all the letters of RUMBLE and three levels of unique combos can be activated



One of the Dreamcast launch titles, the original *Ready 2 Rumble* sold 400,000 copies on that format alone, with a further 550,000 units shifted on the PlayStation and N64. It's not surprising, then, that Midway has pushed through a sequel in just over a year, this time for release on Dreamcast and PS2.

Equally unsurprisingly, the PlayStation2 version benefits from slightly more detailed character models, but otherwise the difference between the two titles is negligible. Around three quarters of the code is common to the two formats.

There are now 24 competitors to select, ten of whom return from the first game. The new characters range from robot fighter Robox, to the slightly fey cowboy Stubby, and also include the dubiously exciting celebrity presence of Michael Jackson and basketball superstar Shaquille O'Neal. Each boxer has an arch-rival – for example, Afro Thunder and his limelight-stealing brother JC – and bouts between the two rivals will be specially billed as 'bad blood match-ups". The Tournament mode has also been improved, but there's still no Dreamcast online network play. Whether the additions will elevate the game from update status to a must-have for owners of the original is questionable.

Episode One Starfighter

Format: PlayStation2
Publisher: LucasArts
Developer: In-house
Origin: US
Release: November

Prove your dogfighting mettle as LucasArts invites you to step into the shoes of three characters omitted from the film in a game that looks like overshadowing its inspiration

Thirdperson space combat comes to the 'Episode One' universe, and three characters absent from the film make their debut here. Each brings a different style of combat to the game: Vana, a stealthy mercenary; Nimh, a pirate under attack by the Trade Federation, who pilots a well-armoured bomber with an independently firing turret; and Rhys, a member of the Naboo Forces, whose strengths lie in close-quarters dogfighting. The current gaming vogue for sniper combat also makes an appearance. Each of the characters begins separately, but their plot lines interweave and eventually link-up for the climatic battle against The Federation.

The settings range from *Rogue Squadron*-style canyon terrain to the more X-Wing-esque space battles. LucasArts promises that if you can see something in the landscape, you can fly to it – level boundaries have been set so far out that only persistent investigation will reveal them. Multiple texture passes on each ship have been used to add a battleworn look to the fighters, and scanline blending means the jagged edges so visible on earlier PlayStation2 releases are almost absent here. If the gameplay is as smooth, *Starfighter* may well represent an improvement on the movie that inspired it.





Fighting takes place both over land and in space. On the land based levels, it's possible to fly into the upper atmosphere and view the fighting from above. At this point, use of the sniper weapon is advised





Medal of Honor Underground

Format: **PlayStation**
Publisher: **EA**
Developer: **In-house**
Origin: **US**
Release: **October 10**

Relive the war as EA reprises its WWII-themed game with an episode set immediately prior to *Medal of Honor*, featuring clever guards, covert ops and a killer soundtrack

Though this sequel uses the same engine as *Medal of Honor*, EA has endeavoured to increase the challenge by offering six new weapons, including the explosive Molotov cocktail, and seven missions spanning 12 levels. Other additional touches include a split-screen multiplayer deathmatch mode and missions which will take place in desert terrain, designed, presumably, to break the gloomy atmospherics of the first game.

The events take place prior to *Medal of Honor* and require the player to take control of Manon, a female member of the Parisian Resistance. Though *Medal of Honour Underground* feels very similar to its forebear, some levels will break the routine of simply moving from location to location and operating event triggers. Most notable is an undercover operation where Manon is tasked with taking photographs of enemy movements and installations. Amusingly, guards will even pose for the camera on certain occasions.

Fortunately, the wonderfully moody music of Eric Kraber, key to developing the tension of the original, returns to complement the excellent gameplay. Orchestral strains are provided by 25 members of a boys' choir, which alters subtly depending upon the levels of stress and action onscreen.









The weapons in the *Medal of Honor* games are just one of the series' standout features. At key points, the player can operate powerful gun turrets to devastating effect. The player can never just lazily lob a grenade or Molotov cocktail down a corridor (above) – often it is picked up by alert guards and thrown back towards your location

Dragon's Lair 3D

Format: **PC, Mac**
Publisher: **Blue Byte**
Developer: **Dragonstone**
Origin: **US**
Release: **Spring 2001**

The Laserdisc 'classic' gets a 3D makeover as Dirk sets out to rescue Princess Daphne all over again, this time with some 180 locations to navigate before reaching his goal









While some scenes differ from the original Laserdisc game, the bright, Disney-esque cartoon look of the title is identical. Hopefully, the true 3D environment will allow for more freedom of movement, and a far deeper gaming experience than the first title offered

Take off those rose-tinted spectacles: *Dragon's Lair* was terrible. It hid its poisoned, random-death gameplay behind a glossy sheen of Laserdisc cartoon beauty. *Dragon's Lair 3D* aims to expand the experience somewhat (though it could hardly reduce something that, conceptually, amounted to a lottery of sporadic joystick wrenching with the occasional button press) by remaking the original in true 3D.

So, the plot remains the same. Dirk's quest involves making it through the lair to rescue the beautiful Princess Daphne, although the 30 areas of the original have been expanded to take in 180 unique locations. Equally similar are the graphics, which render the 3D world with a cel-shading style similar to that of Dreamcast's *Jet Set Radio*, and perfectly evoke the spirit of the Laserdisc version. Dirk has managed to learn some new skills in the last 17 years, too, with a projectile weapon, a hint-providing medallion, and some new sword techniques now at his disposal.

But misguided retro fans needn't fear: the game also includes a Classic mode, which simulates the original using the new 3D engine. It's a bold move, and hopefully gamers will be able to spot the difference.

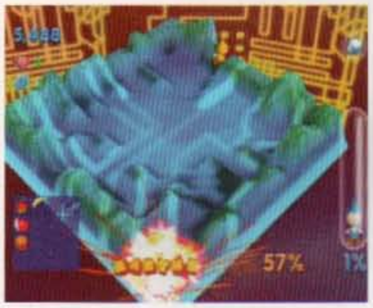


Aquaqua

Format:	PlayStation2
Publisher:	SC
Developer:	ZedTwo
Origin:	Japan
Release:	November 2

Imagineer updates *Wetrix* for PlayStation2, adding improved graphics, a number of new stages, and a focus on 'earth creation' to the already successful gameplay formula







Aquaqua will feature four characters, two of which will feature in the actual gameplay and another pair which, teasingly, will appear as 'special' items. The droplet-shaped individuals represent different eras in the world, which is apt, as collecting water is the key objective



Conceptually developed for the Japanese market by Imagineer and technically developed abroad, *Aquaqua* is said to be more than a mere conversion of *Wetrix* for PS2. The theme of this version is 'earth creation', and in addition to visual improvements, new stages have been incorporated into the code.

The idea of the game remains largely the same as it was previously. Starting with a flat rectangle of land floating in mid-air, you build pools to collect water in. Build too few receptacles and precious liquid is lost over the edge. Build too high and you risk earthquakes. All the while, other destructive elements appear throughout play, but successfully balancing all of these is the key to a high-scoring round.

The power of PS2 has enabled the developer to attain a degree of expression previously missing. Mountains, water, fire, rainbows and other effects have all benefited as a result, hence the game's more organic appearance. It may not affect gameplay, but it remains a clever touch.

In truth, little seems to have radically changed. A twoplayer Versus mode is understandably addictive, but overall this represents business as usual. And given the quality of the original release, that isn't necessarily a bad thing.

Driver 2

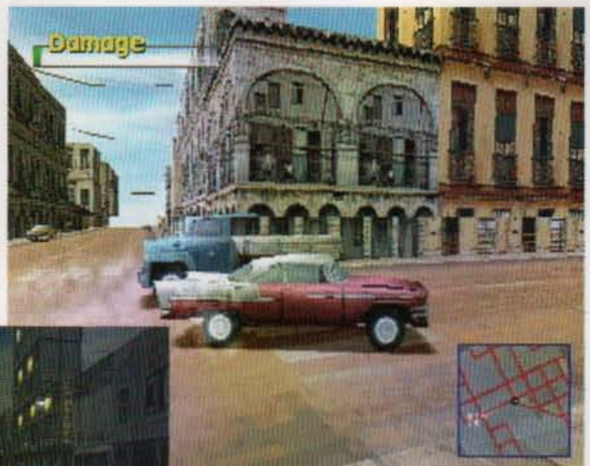
Format:	PlayStation
Publisher:	Infogrames
Developer:	Reflections
Origin:	UK
Release:	November 1

A poorly animated Tanner resumes his undercover police work courtesy of Reflections, this time in cities with curved roadways and (currently) surprisingly light levels of traffic

Though still looking rough around the edges, *Driver 2* will instantly appeal to those familiar with Reflection's first outing. The road system has been completely overhauled to include curved highways, bypasses and slip roads. The traffic filtering has also been upgraded to cope with this new multi-levelled road structure, while cantilever bridges will allow more reckless drivers the opportunity to perform impressive leaps over rivers for the camera.

Chief among the disappointments, however, is the poor animation of Tanner, who is now able to exit and enter any vehicle which is not moving. Though more coding work remains, Tanner's exploits beyond the confines of the steering wheel are not as dynamic as fans of the original game would have hoped. There is little to do bar walking up to red arrows to perform automatic actions which will trigger off an FMV sequence.

Lack of traffic, too, makes driving around the streets a slightly dispassionate experience. Hopefully, this should be improved for the final code. Multiplayer options and extra driving games have been included to try and distinguish the sequel from its forebear. It is clear, though, that a winning formula has not been tinkered around with too much.







The animation and detail of Tanner needs more work if he is to convincingly navigate his way around his environment. Having him exchange a battered car for a newer model is a nice touch, but once the police are on his tail exiting the vehicle is prohibited. This severely limits certain gameplay possiblities, such as avoiding the police by switching cars



Gunlok

Format: **PC**
Publisher: **Interplay**
Developer: **Rebellion**
Origin: **UK**
Release: **October**

Saving the world from rampaging robots is not the most original idea for a game, so can *Gunlok* introduce enough innovations and challenges to keep the genre fresh?

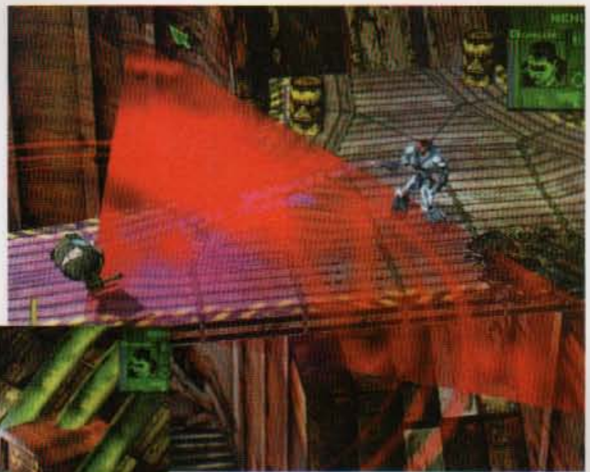
Having lost the bloody war against machines at the end of the 21st century, humankind now faces extinction. As Gunlok, male organic humanoid and lone member of the Advanced Special Forces Group set up to combat power-hungry robots, the time has come to end the reign of The Corporation. Naturally.

Initially, you control only Gunlok, though others join your quest, each contributing different attributes to the group. Along the way, enemy units (that detect your presence either visually or audibly) try to hinder your progress while the game's puzzle elements attempt to baffle you.

One of the more interesting aspects is the ability to swap weapons or equipment (usually found by rummaging through debris piles) between the different robots in your unit, upgrading their abilities. These scrapheaps can also be used to hide from enemy robots if the fevered realtime combat proves too much.

All of the environments **Edge** has seen to date are suitably post-apocalyptic and varied. Being fully 3D, *Gunlok* allows the camera to be rotated as well as zoomed in and out.

While its premise and treatment may not be the most forward-looking **Edge** has come across, *Gunlok* appears competently put together and should easily attract existing fans of the genre.









Gunlok's impressive level of character detail – down to individual fingers – only becomes truly apparent once you zoom in on a member of your clan (right). The game promises 15 vast levels with a further ten multiplayer arenas with a variety of modes (co-operative multiplayer on oneplayer levels also possible), true 3D line-of-sight targetting and advanced 3D pathfinding

Theme Park World

Format: **PlayStation2**
Publisher: **EA**
Developer: **Bullfrog**
Origin: **UK**
Release: **November**

Bullfrog's popular funpark sim has been updated for PS2, but even the addition of chundering kids may not be enough to entice those already owning an earlier version











The children touring the park will be polygonal rather than sprite-based and can now display several emotions, including pleasure, excitement and boredom. And if you should accidentally build a rollercoaster which is too extreme, they will vomit for added effect. The audio has also been improved so that the rumbling sounds of the rides can be heard throughout the theme park

EA was hoping to get its popular fun-park simulator on to the shelves a week before the PS2's launch. Presumably, this was to sell copies to those eager for any PlayStation2 merchandise, whatever form it took. Sony's decision to push back launch day will do no favours for the game which will come up against much more solid opposition in November.

For a game based around the employment of innovative design to give people the thrill of their lives, Bullfrog's update ironically smacks of extremely conservative reasoning. Graphics are noticeably improved from previous versions, but do little to push the hardware, and although some additions have been made they are fewer than anticipated.

Rollercoasters can be constructed as before, but this time you will be offered a rating for your white-knuckle invention. Twenty-eight categories will be appraised, including the maximum and minimum degrees of slope, G-forces imparted on the rider, and the total distance. Devise the 'ultimate' rollercoaster and a secret editing option is unlocked.

Eight levels, increased ticket challenges and some supplementary sideshows will be little compensation to those already familiar with the franchise.

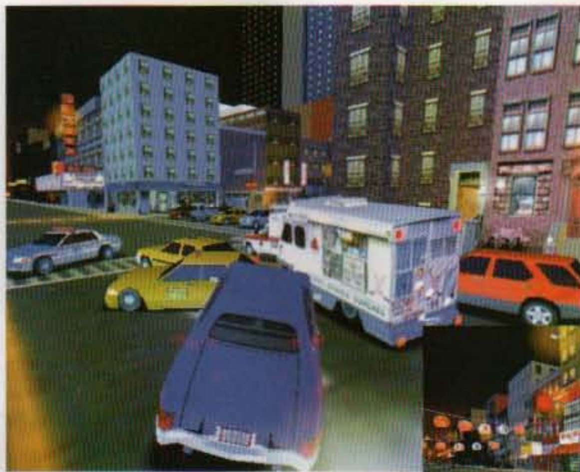
Midnight Club

Format: PlayStation
Publisher: Rockstar Game
Developer: Angel Studio
Origin: U
Release: Q4 200

At last a title truly taps into the world of the boy racer as fully modded motors take to the night-time streets of London and New York in a frenzy of illegal racing







Victories allow players to access better cars. Grease monkeys can fine-tune these with equipment from the likes of Dimmer, VeilSide, Zender and Wings West, but for those players to whom that means very little, there is always the potential for a pile up to punctuate races. The races themselves take place across a number of different modes, including head to head and waypoints



M*idnight Club* is the latest attempt by Rockstar Games to inspire a vehicular crime wave, set in the shadowy world of secret street racing. Maniacal driving skills are a must – gunning red lights, making use of sidewalks and eluding the attentions of traffic police are all necessary to overcome other members of the eponymous club in illegal races through London and New York streets.

The two cities are modelled with a reasonable degree of accuracy, although for some reason the developer has opted not to recreate the gridlock that characterises their real-life counterparts. There is a healthy number of background vehicles to avoid, though, including black cabs, yellow taxis, and various civilian cars. Drivers needn't be so mindful of pedestrians, however, who seem to be less of an impediment to progress.

Handling is impressively arcade-esque, allowing maximum use of the handbrake to negotiate corners and turns, and in all 17 different vehicles are featured over 75 races. A Career mode gives you the opportunity to rise up within the ranks of the club, fine-tuning cars as you go, and – as has come to be expected from Rockstar titles – the soundtrack is suitably of the moment, boasting contributions from the likes of Detroit techno DJ Derrick May.

Wild Wild Racing

Format: PlayStation2
Publisher: Rage
Developer: In-house
Origin: UK
Release: November

This colourful off-roader from Rage may boast straightforward handling, but currently lacks the bounce you'd expect from all-terrain buggies being thrown over rough terrain

At first, *Wild Wild Racing* is disillusioning. While *Smuggler's Run* (p34) tries to be slightly different, *WWR* appears to opt for a fairly straightforward off-road racing structure. This isn't necessarily a bad thing, of course, provided certain game elements distinguish themselves from the competition. Yet whether *WWR* holds anything in reserve isn't immediately apparent – the game's potential is obscured by lifeless Championship/Quick Race options.

The handling model may make *WWR* perfectly playable and the courses are long and offer plenty of shortcuts, but they're not very exciting. Why not exploit the uneven terrain to liven things up? These are off-road vehicles, after all. You'd expect them to be bouncing all over the scenery, yet cars display restraint when negotiating jumps, as if embarrassed to launch themselves into the digital air. It's a shame, as increasing their jumping ability would make things far more exciting.

Still, eventually the more interesting additions appear. The Challenge mode, with its promise of new vehicles for successful completion of the subtasks, is reminiscent of *Beetle Crazy Cup*'s wackier exploits. And, like the latter, these prove more entertaining than the main racing. Perhaps the balance will be redressed by release time.





Oddly, *WWR*'s straight racing option (above) doesn't prove as gripping as the game's challenge modes, which include racing around tracks collecting letters, pushing generously proportioned beach balls to the finish line, or negotiating stunt courses within strict time limits. If the main game can match the fun of these tasks, Rage could have something here, after all





Castrol Honda Superbike 2000

Format: **PlayStation**
Publisher: **Midas Interactive Entertainment**
Developer: **Bubble Boys**
Origin: **UK**
Release: **October**

With a 24-racer pack, realtime damage and 11 international circuits, this Bubble Boys PC conversion looks like bringing competent motorbike racing action to PlayStation

Converted from its original PC code with reasonable aplomb, Midas's latest *Castrol Honda* PlayStation game is shaping up to be far more playable than its 32bit predecessor. It's still a couple of months from completion, but already the handling exhibits a number of rewarding features, particularly when you use a dual analogue stick configuration (right stick for throttle/braking purposes). While the demo **Edge** has played only features an Australian track, expect the release version to contain a further 11 international circuits, including the enticing prospect of the Monaco Grand Prix layout (which is never used for bike racing in real life).

Impressively, the races include a 24-rider starting grid, although you shouldn't expect the game's realtime damage system to allow all of them to cross the finish line – in Professional mode one or two tumbles is usually enough to cause either terminal suspension or engine failure, forcing abandonment of the bike.

As ever, the usual Championship and Single Race play selections are included along with a twoplayer split-screen option. With the promise of improvements such as rider animation to be implemented in the final code, *Castrol Honda Superbike 2000* could emerge as a competent proposition.









The overall graphical detail is certainly decent, with some particularly effective chrome mapping on body panels at work, though at this stage pop-up and frame rate problems occur. Just to make racing more difficult, dynamic weather is on the standard features list as is the ability to tune your two-wheeled demon in between races in a bid to beat your CPU competition

MotoGP

Format: **PlayStation2**
Publisher: **Namco**
Developer: **In-house**
Origin: **Japan**
Release: **December**

Namco revamps a lacklustre 1999 coin-op for the 128bit home market, hoping to lead a gaming category that has always failed to prove as popular as its four-wheel equivalent









Bold and colourful arcade-like visuals may win it friends – for a first-generation PS2 game it's not looking too bad – but the primary question is whether the arcade version's stifled gameplay has been improved for this home adaptation. The official tracks are Japan's Suzuka and Motegi, the UK's Donnington, Spain's Jerez, and France's former F1 circuit, Paul Ricard (shown here)

Officially licensed on the FIM Road Racing World Championship Grand Prix event, *MotoGP* focuses squarely on the furiously competitive world of 500cc racing and features all the riders, bikes and teams from the 1999 season. Converted from Namco's own *500GP* coin-op, the racer's detailed visuals shouldn't strain its host platform, resulting in the polygonisation of five circuits.

Four game modes (Time Trial, Challenge, Season and twoplayer Versus) join the Arcade option. Other home improvements include the ability to customise any of the 32 available bikes. Expect the Challenge mode to unlock additional elements such as tracks and photo galleries.

Curiously, despite being regarded by many as more exciting than any other form of motorsport, few motorbike games since *Super Hang-On* have managed to seduce players in the same manner as, say, *Ridge Racer* or *Gran Turismo*. The primary reason for this is a control issue – the feedback from a joypad doesn't translate as satisfactorily when it comes to the handling subtlety of two-wheeled machines. The question of whether *MotoGP*, with its extra modes, becomes any more tempting once in the comfort of your living room than it is as a full-size arcade cabinet will be answered in a few short months.





Sacrifice

After the disappointments of *Messiah*, Shiny has taken a different tack with its forthcoming title, which is firmly positioned in the popular RTS realm but features strong RPG elements. MD Dave Perry explained his shift in focus to Edge over dinner in a San Francisco sushi bar

Dave Perry may still be the prime example of a games designer living the luxury ex-pat-in-LA lifestyle, but despite the wealth and fame (of sorts), it can be hard not to feel a little sorry for the lofty but affable Irishman.

Not because he's just relinquished his cherished Dodge Viper for the more modest lines of a BMW – a sad loss perhaps, but Laguna beach will be safer for it – and certainly not because of the passing seagulls that occasionally obscure the striking panoramic coastal views from his oceanside living room.

Fallen angel

No, it's far easier to muster a bit of sympathy for Perry when you consider the three years that he and his 30-strong staff laboured over *Messiah* – the intelligent but flawed PC title that promised so much but ended up delivering an awkward mixture of gameplay styles that failed to find an audience. After a lukewarm reception from the world's videogames press, a frosty welcome awaited when it tanked at retail earlier this year.

"We hyped it too damn early," concedes a tanned and inordinately healthy looking Perry, while ordering sushi in a busy San Francisco restaurant. "That's why *Sacrifice* was kept under wraps so long."



Shiny's latest title is, in the words of its creator, an 'epic, multiplayer, no-holds-barred 3D realtime strategy game with strong RPG elements'. At first glance it seems as far away from the Shiny's typical quirkiness as you could get. Draped in gloomy fantasy RPG aesthetics and brimming with RTS functionality, *Sacrifice* is virtually a call to arms for strategy and RPG PC gamers. There are no worms in space suits, no sniper-equipped helmets, and most definitely no flying cherubs. Has Perry finally geeked out?

"*Sacrifice* is a very Shiny game," he explains. "Its fundamental design is based on what we want the game to be doing, not what other games are already doing. I was lucky and got some of the key people who produced, directed and designed *Starcraft* [including James Phinney, lead designer and producer on *Starcraft* and associate producer on *Warcraft II*] to make sure the game embraces realtime strategy gamers. But we've created a game that will also keep us 'I don't like farming' action guys very happy too."

The result is a fusion of action gaming and strategy gaming expertise that successfully elevates *Sacrifice* well above the quagmire of 2D-masquerading-as-3D RTS clones. Most noticeably, its thirdperson perspective and heavy action

Format: **PC**
Publisher: **Interplay**
Developer: **Shiny Entertainment**
Price: **£40**
Release: **October**





"*Sacrifice* is a very Shiny game," says Perry. "Its fundamental design is based on what we want the game to be doing, not what other games are already doing"







Sacrifice combines a number of elements, including slaughtering the opposition, sucking up their souls and placating your own god, all of which will level you up



Action stations

Sacrifice is a true videogame hybrid – a fusion of action and strategy that could well require players to do parallel-processing of their own if they're to get through its 46 single player levels. What could come as a surprise to dedicated RTS fans, though, is how the mouse-operated unit commands have been cleverly integrated into the arcade-style dynamics. For example, command layouts are accessible via directional clicks on the mouse. Holding down the right button and moving in a certain direction will select a particular unit formation (a pop-up window system and audio will assist if you're slow), or double clicking on a unit type will select all the units of that type. In fact, pretty much everything in *Sacrifice* has been streamlined for speed – and you'll be glad of it when you've got about a hundred angry goblins and demons nipping at your heels.







slant mean that players are constantly in the thick of the action, rather than enduring the traditional RTS stance of nudging pieces around a board several miles behind the frontline. This makes for a wholly immersive experience – a sophisticated combination of resource-based strategy and balls-out 3D action.

Casting the spell

Stepping into the shoes of a wizard – essentially a roving commander – players inhabit vast, suspended landscapes that are presided over by five different gods. By choosing a god to serve and then receiving a mission objective, particular spells are granted. The core of the game is then spent capturing the souls of your enemies, summoning creatures (there are more than 50 types) and preventing your enemy from casting units – all the while boosting your own resources and levelling up. In the oneplayer game, the choices the player makes have a direct effect on the action – primarily changing the god served also changes which spells are accessible.

Initially, though, the player needs to secure their own mana supply. This is done by summoning a manalith over a mana source and then using manahoars to channel the mana towards them. Once the mana is in the bag it's time to go off hunting for souls (left behind by killed enemies or other inhabitants of the landscape), building up experience levels (the RPG overtones) and, yes, sacrificing.

Sacrifice is necessary for two reasons: first, if a killed creature was benign it leaves behind a blue soul. These can be picked up simply by running over them. If, however, the creature was an enemy then the red soul it leaves will need to be resurrected with a spell and dragged to your altar to be sacrificed (and converted to blue). A second type of sacrifice occurs when a player wants to banish an enemy wizard – achieved by casting a desecrate spell on one of their own units while near their opponent's altar. The resulting sacrifice will desecrate that altar and damage the wizard opponent.

Such game mechanics might appear tedious to all but the most hardcore strategy fans, were it not for the fact that a simplified 'tech-tree' and resource-management system allows the action – depicted in cracking 3D – to take centre stage. Make no mistake, this game contains some of the most startling 3D visuals that **Edge** has seen. The landscape, for example, is generated by a hugely extrapolated version of the *Messiah* technology and it unravels naturally and convincingly into the distance, providing a real sense of scale.

However, what really impresses is the sheer volume of animation taking place at any one time. Seemingly, through a combination of intelligent optimisation and cunning programming tricks, there's no discernible limit on the number of creatures you can summon on screen – simply fill it with winged, fully animated demons and surprisingly it all keeps moving; even, it's worth noting, when there's also a volcano spell wreaking havoc on the terrain, and multiple gigantic twisters spiralling gorgeously into the clouds and sucking up myriad creatures.

Multiplayer promise

While *Sacrifice*'s oneplayer mode is refreshingly geared towards replayability (the NPC AI doesn't cheat and uses a limited 'view' of the action, just like a typical human player), it's the multiplayer mode that will receive the most scrutiny. Here the player pledges allegiance to a god before entering, thus determining their 'tech-tree' prior to battle – and those battles come thick and fast. The developer also claims to have eliminated one of the bugbears of many threeplayer RTS sessions – when a one-on-one battle between two of the players is demolished by a third player who muscles in and cleans up. Shiny's game constantly powers up the players so that any strategic bystanders will be easily overpowered by more effective magic, as all the souls are snapped up.

As the designers finish focusing on balancing the basic game elements, they will implement a variety of multiplayer scenarios – something RTS fans have allegedly been concerned about on Shiny's forums. Planned modes include Soul Harvest (where the winner is the first to collect a number of souls) and the unforgivably dubbed Gib-o-rama mode, in which the winner is the first to 'gib' a specified number of



The thirdperson perspective involves the player in the thick of the action, which is a step away from the traditional RTS perspective of marshalling your forces from a position far from the front line





The landscape is generated using technology developed for *Messiah*, and generates a hugely convincing game world





The straightforward control interface enables the player to make some quickfire moves, a requisite for success in the game's mix of action and strategy

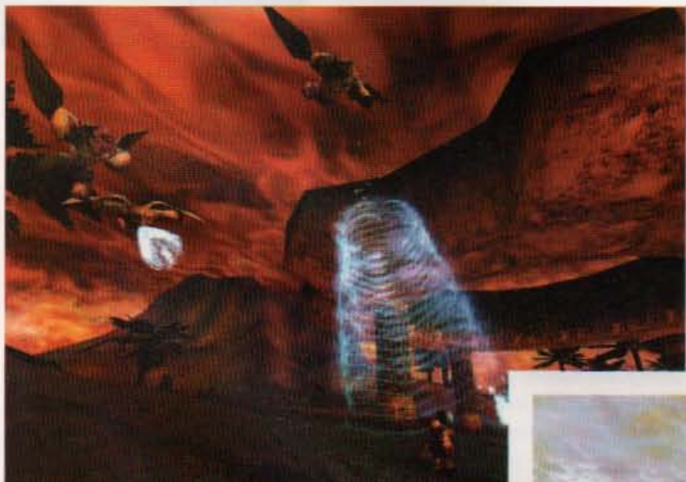
creatures. Add these modes to allied play and map editor Scapex, which will ship with the game, and the package is shaping up very nicely.

Few titles have taken strategy into the third dimension and convincingly used the extra plane for more than a dazzling 3D makeover. *Homeworld*, *Battlezone* and perhaps one or two others have succeeded, but it looks like *Sacrifice* will be the first all-out action interpretation of the RTS genre. The intuitive mouse-based combos that are used to generate spells and attack formations are particularly impressive – this is what happens when you get a bunch of console gamers working with PC heads.

Recipe for success

However great *Sacrifice* is already looking, though, Shiny's boss must be aware of the fine line between delivering the play-it-safe-money-in-the-bank game mechanics and truly bewildering the player. In that sense, Shiny seems to have steered well clear of a complicated RTS fest, and has invested its time in a game engine geared towards immersing players in a fight of mythical proportions.

After the disappointment of *Messiah*, there's arguably more at stake for the 33-year-old Perry this time. "The response has been great," he concludes, taking his final sip of sake. "But I'm not hyping this one up – it's for the player to decide if it's their kind of game." It may be that he already knows it will.







The game engine is capable of supporting a huge number of creatures onscreen, even when a volcano spell has been cast, or twisters are winding their way across the open plains of the game

Interview: Dave Perry

How do you feel about the *Messiah* experience?

Shiny just loves to make games that have an interesting hook to them. The possession idea in *Messiah* was a really good example. It allowed you to leap into the bodies of your enemies and then use their bodies to fight each other. It allowed you to pretend to be an enemy by using their friend's body and then sneaking up on them.

It allowed you to use an enemy's body as armour, letting it take pain for you. I personally really enjoy getting into a good firefight using this mechanic. The problem was that this game also had a lot of platform game elements, which the typical *Quake* gamer is hyperallergic to. With hindsight, the PC market was really the wrong format for the game, it would also have saved us a lot of struggling with compatibility. Luckily it's all sorted out now.

Would you change anything in the game?

Yes, we would have put it straight on to console, and would have removed some of the harder platform elements. We would also have made it multiplayer. I still believe it would be a bloody amazing multiplayer game, and hope someone makes one sometime soon with this kind of raw possession in it.

Does a part of you yearn for the days of surefire hits like *Earthworm Jim* and *Aladdin*?

Those days are still here... it's just a frame of mind. Do you copy the formula that gamers are currently buying in droves, or do you try making something different? Eight years ago, I played it safe. I used to say: "People like hamburgers. They don't want 'creative' hamburgers that might taste funky." I guess I broke my own rule and since then we have enjoyed making something a bit, well, erm, 'different'. That means that our company attracts extremely creative people that enjoy the freedom. We understand that this is a business and, yes, we will be turning our attention back to more 'socially acceptable' games for a while.

What's the next step for Shiny? Where do you see your company going?

We are focused on introducing new techniques for immersing a gamer in a rich ambient world. I love technology, I love fresh ideas, and, being an ex-programmer, I will be making sure the design really flexes the programmers here. You can expect me to go underground once *Sacrifice* gets released, I will be pouring a ton of my personal time into this next game. There go the vacations for another two years.

How do you see the PC development climate?

The PC is really taking an unfair beating. Console developers are declaring it dead, but this is just not the case. It is still, and will remain, a fantastic place to play games – well, if you have the cash. The problem is that a great 3D gaming videocard alone on a PC is the price of an entire console system with DVD! That's worrying for the PC gamer, especially considering the X-Box is based on PC architecture – he has gotta feel burned unless Microsoft charges $1,000 for the X-Box.

Do you think X-Box will affect PC development?

The X-Box is a new dawn for PC game developers. I think there may be a mass defection. Make sure you order yours early.


R.M. Williams
GOLF
SALE
SALE
50%
OFF



Photography: Martin Thompson

Inside...

Team Camden

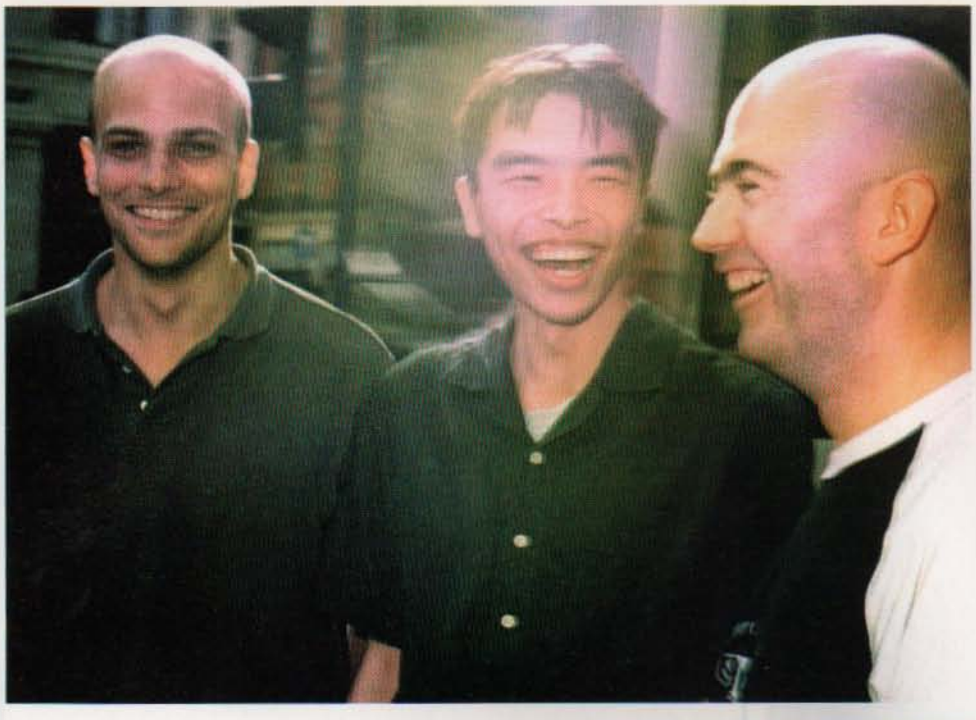
Think Michael Caine in 'Get Carter'. Think Bob Hoskins in 'The Long Good Friday'. Think Vinnie Jones in 'Lock, Stock'. Think London, gangsters, guns and car chases. Think real. Think *The Getaway*. Edge visits the Sony team that thinks it's designing the most realistic game in the world. Ever.

SCEE's Soho studio is almost exactly one year into the development of *The Getaway*, and the time has come to find actors to play some of the peripheral roles in the game. Unfortunately, **Edge** arrives a couple of days early for the lap-dancer auditions. Instead, a troupe of 'Yardies' is ushered into the building. **Edge** is unsure whether they are very convincing actors or actually the real thing. As it transpires, the word 'real' is used extensively during the day.

Studio manager **Brendan McNamara** is unphased by the bizarre casting situation, mentioning that 'Big Walter' is due in later – all seven feet two inches of him. McNamara speaks with no-nonsense economy and, like many of the coding team, his face has been scanned into the game for use as a character. He would be the first to admit that a high-ranking gang lord might best suit his demeanour, and **Edge** isn't about to argue with him when he states that *The Getaway* will be the most realistic representation of a city ever seen in a videogame. One particular anecdote underlines his striving for detail: "One of the girls who is wardrobing the game went out to Dalston. It's one of the hairier parts of London, and she was trying to take some pictures of people with the kind of gear the gangsters will be wearing. She nearly got rolled for her camera," he relates casually. "Now we send them with reinforcements."

Punishing PlayStation2

Other than the much-vaunted *Metal Gear Solid 2* there have been few games **Edge** has viewed which looks like putting the PS2 architecture under any kind of strain. While many will scoff at the notion that 'reality' can actually be built within a videogame, McNamara's ambition for photorealistic













Much work still needs to be done on the street furniture: litter bins, lamp-posts, boxes and even the cracks in the pavement still need to be added. The overall effect is still impressive, if currently, a touch barren. The team is hoping to implement a damage system whereby different objects cause degrees of damage. So, hitting the side of a lamp-post will cause more crumpling than a plastic bin

environments, accurate car handling and the most lifelike animation ever seen in a videogame are beginning to come together.

He expresses some discontent at the way early screenshots, released in May, were widely reported as being conceptual renders. "Nothing you see today is rendered," he asserts. "And *The Getaway* is not just about driving. There is a whole internal game there."

Comparisons with *Driver 2* are inevitable, yet Sony has ambitions to take things several exciting steps further. Lead designer **Chun Wah Kong** breaks the news: "The game is completely free-roaming and mission-based, but how you go about getting there – whether you decide to run there or drive there – is completely up to the player." Wah Kong goes on to disclose that the game will be 60 per cent driving and 40 per cent thirdperson action. They will be seamlessly interwoven. The implications already stir the imagination.

Wah Kong continues outlining these aspects of the game: "You can walk into a warehouse and pick people off using a Z-lock-style aiming system. There will be several points of entry. You can walk through the front door and try to take on everybody, but that would be foolish. Using your brain will be necessary. With the level of realism which we are going after you have to consider that."

Covering the turf

The size of the task McNamara's team is undertaking is evidenced by a map which lines the wall of the corridor leading into the heart of their development studio – 50 square kilometres of Central London have been pencilled in for use in the game. This includes





Car enthusiasts will note that current models lack some distinctive features such as badges. Sony's legal department is currently negotiating all the licences for the game. Will Audi allow its new TT to be wrecked?



Edge suspects that this car interior is speculative at the moment – whether they make the final cut is another matter. The team would like to offer the player both third and firstperson perspectives while driving. Police officers will be able to drag you out of your vehicle



side streets, cul-de-sacs, roundabouts, one-way streets – only the smallest of roads have escaped the highlighter pen treatment. It will be possible to drive through Hyde Park, visit Kensington Palace or even perform stunts across the Tower of London. McNamara maintains that those familiar with London will easily recognise particular districts. So painstaking is the translation from street to game that potential taxi drivers would do well to invest in a copy to learn The Knowledge.

The game world which the player is to inhabit will be familiar to those who have seen 'Lock Stock and Two Smoking Barrels'. Along with *Driver*, 'Get Carter' and 'The Long Good Friday', the film has become required viewing for the team. The videos are available to take home and watch – the coding equivalent of an actor getting into character. The team wants



Black cabs will be predominant, giving London natives the chance to exact revenge in-game

to make it clear that the game won't just be technical exercise. "We have a whole bunch of people from a film background," continues McNamara. "We've had to wardrobe it. Two people are now working on the script, which has been really, really difficult, and we've had someone art directing who has worked in film. We want the game to be driven by the story."

Both sides of the law

Two characters will be playable: Mark, an ex-professional bank robber trying to forget his past, and Roy, a police officer taking on the missions from a law enforcement perspective. Mark's son is kidnapped by a gangland boss and he is reluctantly dragged back into the seedy world of corruption. Roy is assigned his case. There will be 12 missions in total, although each can be played with either character and will be markedly different. They will include shootouts, robberies, stealth and, of course, manic car chases through London.

One particular concern **Edge** expresses is in how the chase and internal action sequences will be integrated. Wah Kong is confident that such a transition can be achieved satisfactorily: "I'm pleased with the way we have integrated the interior and exteriors with no loading time whatsoever. That seamless element is something we have spent a lot of time on. It's done using portals which group sections of the road and interiors, so we

Talking Heads

The Talking Heads software is the most realistic realtime facial animation package Edge has seen. Facial features are scanned in from actors and laid across a muscle mesh which consists of 64 independently moving joints. Speech software is integrated for further effect. The result is scarily realistic and matches *The Getaway*'s attention to detail.






CARNABY



are able to throw away textures."

Should everything Team Soho is pushing for materialise, the freedom granted to the player will be unprecedented in what is ostensibly a driving game. Buildings that can be entered will be clearly defined by people walking in and out of them from the street. They will consist of several rooms and even multiple levels, depending on the location. The interiors **Edge** saw were already as detailed as any seen in the most advanced firstperson shooter. More remarkable still is that Wah Kong wants events on the outside to affect enemy behaviour on the inside. "We want some really subtle effects," he enthuses. "One task might be to drive to a particular location to grab an item without them knowing. If you drive to a location and then you slam the brakes on really loudly, then that will alert the baddies inside. Also, if you come out of a gunfight into the road and you're still carrying your gun, everyone is going to run away. But if you put it away, then you can blend in with the crowd."

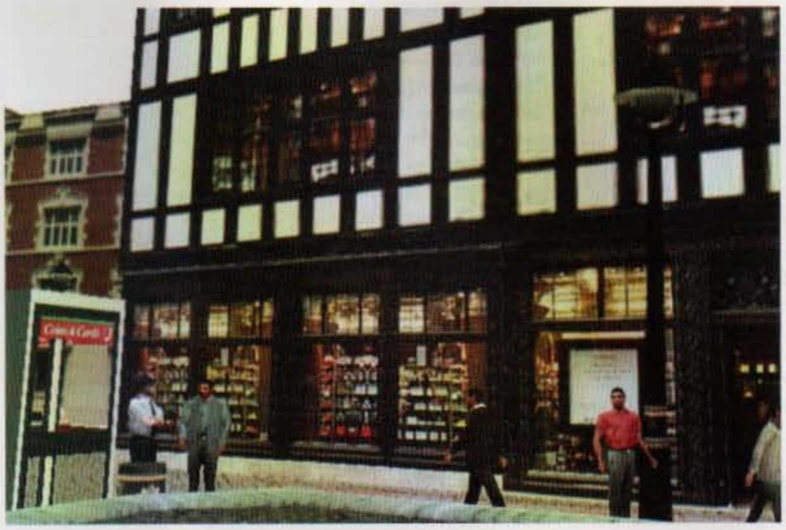
Being real

Though only just in the process of being implemented, the AI of both enemies and pedestrians was taken into account during the game's conception. Realistic car physics and the accurate representation of London's streets would be bland without a realistic traffic and pedestrian system to bring out the bustle of city life. Lead programmer **William Burden** is single-minded about his vision for the game: "I want a full and comprehensive street system. We are going for a system where you can lay down all the lanes on the whole of the map. We want all the rights of way and all traffic lights. Cars travelling in [*The Getaway*] London will respond in the same way they do outside. The map will be able to tell the ratios of where cars are distributed. You can go to any junction and see 50 per cent of cars go straight on, 25 per cent go right and 25 per cent go left. We will actually use these ratios."

Pedestrians will be dynamically modelled and animated to react to their environment. This will not just be a case of them jumping out of the way of oncoming vehicles, as in *Jet Set Radio*, but being imbued with a diverse set of reaction parameters. "They will be a few leaps on from anything seen before," adds Burden. "At crossroads they will look in windows or at each other. They can answer mobile phones, even stop and point at emergency vehicles." It is vital to the team that peripheral characters are modelled to the same detail as the main characters to prevent the game world's spell breaking. "It should be continuous," says Burden. "All we do is change the level of detail according to how close they are to the player. If you walk up to a pedestrian he will be as detailed as if you looked at yourself in a mirror."

Controversially, Team Soho isn't compromising on the 'realism' factor in any way. This inevitably means that pedestrians are subject to the abuses of wayward driving. While no benefit is gained from running them over, as in the *Carmaggedon* titles the lifelike representation of people being crushed under

Team Soho isn't compromising on 'realism' in any way. Sony has already begun labelling the game's artwork with an '18' certificate



The art team has been studiously going around London taking pictures (when the weather is fine) of shopfronts with a digital camera. Each building takes around two days to be 'cleaned up' and imported

Getting away with car physics

Javier Carrion is SCEE's senior programmer and works on every aspect of *The Getaway's* car dynamics. Though based in Spain, he maintains a close working relationship with the Soho Team, and revealed to **Edge** the level of accuracy he is aiming for in each of the 50 drivable cars in the game.

Carrion's most innovative decision is to move away from what he calls 'built-in specifications'. "We've never imputed things like the maximum speed values or acceleration figures," he says. "All cars in *The Getaway* have different values for the transmission type, engine, suspension geometry, caster, camber, toe in-out, even quality of tyres. If the model is right, the car will perform exactly as it does in real life... and it does. Every time the player is driving, the dynamic model is computing the engine traction force against the aerodynamic drag and tyre friction." Degradation parameters will also be implemented to simulate some cars being more worn than others. "Not all cars you find in the street are new," Carrion adds.

The suspension alone allows for a range of behaviour. "If you look at the rear axle of a Ford Transit, it behaves like a rear solid axle and the wheels always stay parallel. On the other hand, the front suspension of a Jaguar XJ6 consists of a wishbone and springs. Wheels are no longer perpendicular to the ground. As the Jag springs up and down, the camber, caster, toe in-out are all modifying – even visually – the orientation of the wheels."

Edge drove one car model (Sony's legal department is still negotiating with manufacturers to secure licensing deals) around *The Getaway's* streets, and although some aspects still need to be added, the car proved incredibly responsive. Wheelspins and tyre wear were noticeable, and you can perform handbrake turns. Just how sensitive the differences between cars will be, however, remains to be seen.

It is a priority for Carrion to include a comprehensive car damage system, which will see some of the most recognisable vehicles in Britain becoming wrecks after fierce shootouts and fast chases. "Besides the compulsory scratches and sparks, we are working on an actual bodywork realtime deformation algorithm," he reveals. "Different materials have different deformation values. We are doing the kind of simulation crash tests that car companies do."

Damage will affect handling in a coherent way. "If a car hits the pavement at speed, the geometry of the front suspension is modified. The steering parameters are altered and the car begins to behave differently." Carrion promises that the player will see cars pulling to one side, wheels showing more compliance, bearings locking and even radiators overheating if hit by a bullet.



The player will be ale to perform 'Hooper'-style stunts after some practice. Driving on two wheels down alleyways and leaping other cars might be necessary in certain situations if the police are in pursuit





vehicles is destined to court outrage. Sony has already begun labelling the game's artwork and promotional materials with an '18' certificate, yet pressure to remove morally sensitive aspects from the game for commercial reasons may weigh heavy in the coming months. McNamara remains adamant that this aspect, and other adult material including swearing, maiming, racist characters and storylines incorporating the sex trade, will remain: "I think it's a non-issue, I really do. I worked in the States and there was all this stuff about what records people listened to and what games they played, but there's no talk about how cheap it is to buy handguns. I think if you did something about the handguns then you would get a much better result than banning videogames."

At least the player is not encouraged to kill innocent bystanders. As Wah Kong explains: "You can run people over, you can get out of the car and start shooting pedestrians, but the consequences of that is that loads of police turn up. The police helicopter can emerge, so you will get punished." McNamara concludes: "We have a morality in the game which comes out through the story, but we're not forcing people to think in certain ways."

Getting personal

It is a bitter irony that the closer videogames come to representing human characteristics, the more pressure will build to ban them. Developers will naturally use additional processing power to form game worlds that better mimic our own physical universe. Yet giving a freedom of action with realistic human representation will inevitably lead to moral outrage. **Gavin Moore** is the senior animator on *The Getaway*, and his ambition to bring the most lifelike representation of human movement to a videogame is nearing fulfilment. "The technology is called Talking Heads," he reveals. "We can mimic blink rates, random head movement, and even breathing at the end of sentences." Though the screenshots display a remarkable level of detail including skin tones and pock marks, the still images can't show the wonderful contortions each face is capable of.

Each head is scanned in from the actor playing the part of the game character and is overlaid onto a muscle mesh. The muscle structure covers 64 of the main muscle points in the face, all of which can all be manipulated independently. Talking Heads has six basic parameters, which include happiness, sadness, anger, fear, surprise and disgust. Others like perplexity, shock and tiredness can be added. Adjust the intensity of the parameters and the face reacts accordingly. They can all be blended to produce a complexity of animation.

Speech is also incorporated using the company's proprietary software. The lips respond to a 16 phoneme set (there are only six in a standard Disney cartoon), and once a .wav file has been recorded the data can be checked against a digital dictionary for its phonemes. This ensures that painstaking speech-for-speech lip-synching is avoided. The example demonstrated to **Edge** was impressive; apart from some missing details inside the mouth when it opened, the face came to life with an unnerving accuracy.

Almost on cue, a hulking figure can be seen walking through the development studio and towards the casting room. Those who spot the man destined to be 'Big Walter' from the Bethnal Green Mob stop their work and look over with curiosity. As well as tall, he's also on the rotund side. Should he get the job – and who would refuse him? – he'll be one of the next characters to get the Talking Heads treatment. Your correspondent is also offered the opportunity to be scanned into the game, but the prospect of squaring up to an angry, gun-toting Big Walter isn't to be taken lightly – even in a virtual world.







Each area of London is being meticulously reproduced. It will certainly be possible to recognise your district right down to the local McDonald's. The team might also include its own studio in a bonus level









FAQ

Company name: SCEE Team Soho

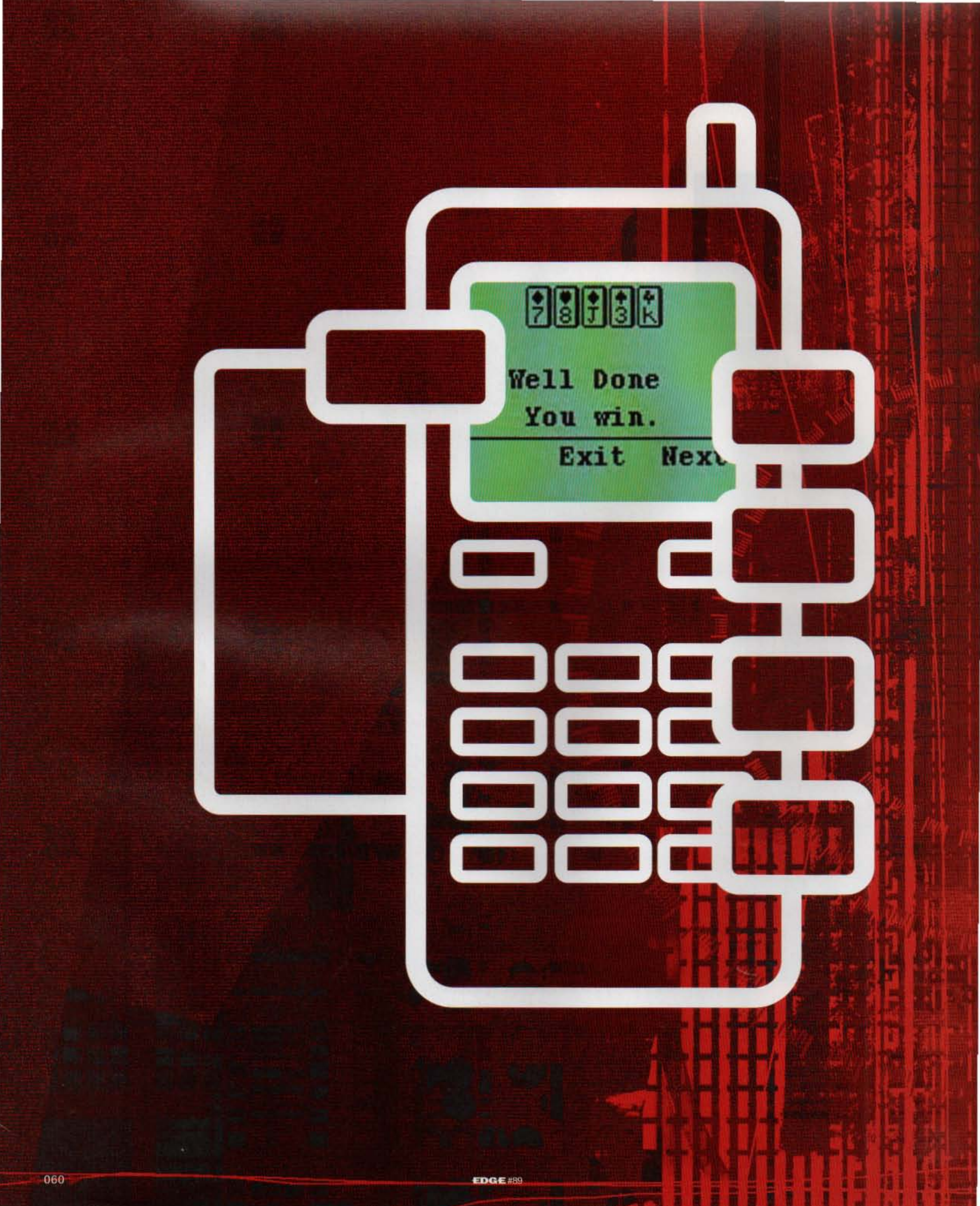
Founded: 1994

HQ: Noel Street, London W1

Number of employees: 60

Softography: *Total NBA* (PS), *Total NBA 97* (PS), *Porsche Challenge* (PS), *Rapid Racer* (PS), *Spice World* (PS), *This Is Football* (PS)

Projects in development: *This Is Football 2* (PS), *This Is Football* (PS2)

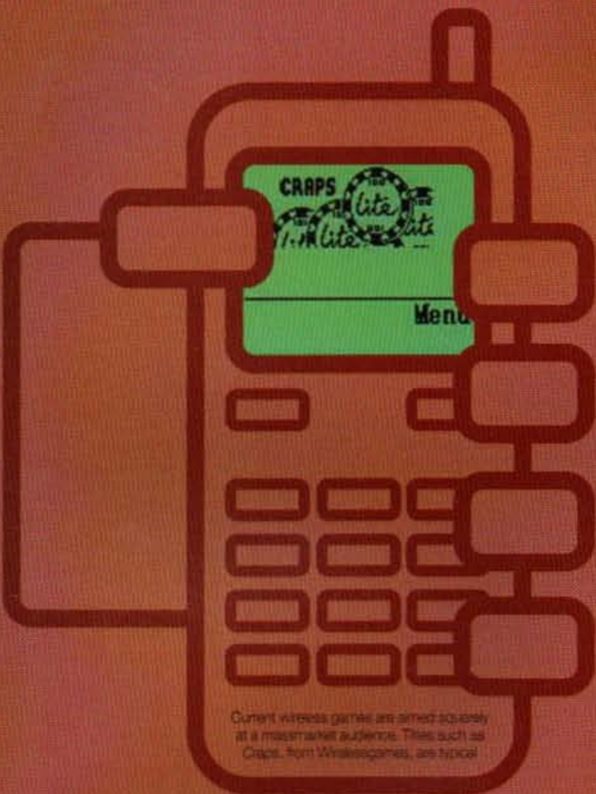


Well Done
You win.
Exit

WAP's the big deal?

WAP has been hyped as the easy way to buy into the erevolution – the world in your handset. Games come as part of the package, and **Edge** talks to the developers creating the first generation of titles that can be played on a phone

Anybody who has occupied themselves with the so-called games that come packaged with the current generation of mobile phones will probably have done so to escape the inevitable onset of boredom that is a feature of – for example – the dentist's waiting room. So they could be forgiven for being somewhat sceptical about the advantages of the mobile phone as a next-generation gaming platform. News that Sony has introduced an element of wireless connectivity to its redesigned PSone is just one example of the way in which the industry has begun to prepare for future iterations of wireless technology, but the immense popularity of iMode technology in Japan is in rather stark contrast to the slow take-up of WAP in the UK, where network operators don't have the benefit of low PC penetration. BT Cellnet managed to shift substantially less than its forecasted 500,000 units, despite offering WAP as a cheap, pre-pay service, while Orange was forced to cut prices for its own offering. Consumers have yet to be won over by a technology that is characterised by long download



Current wireless games are aimed squarely at a massmarket audience. Titles such as Craps, from Wirelessgames, are typical

times, limited content, and a restricted interface.

Quick turnaround

Nevertheless, several game developers have been quick to seize the opportunity to generate WAP content, seeking to turn apparent limitations in functionality to their advantage by producing massmarket product with short turnaround times. Companies ranging from the well-established – such as Activision and Rage – to start-up companies like nGame and Friendly Giants all have WAP content in development. Digital Bridges is perhaps alone in focusing on underlying delivery technology and adopting a role as a distribution partner, but it is also developing WAP content in its own right. "The difficulty right now for all game developers is finding the right style of product that works properly on small monochrome screen resolutions, with tiny amounts of available memory and very limited bandwidth," argues **Glen O'Connell** of Rage Software, summing up the difficulties facing the current crop of WAP developers. "These games have to offer much wider appeal than your traditional core gamers' title on the PC or console."

Capturing the attention of the elusive '*Tetris* audience' will indeed be a major challenge. **Steve Jackson** of Lionhead Studios, who is working with Digital Bridges on a game based on his 'Sorcery' adventure gamebooks, also emphasises accessibility as a crucial design component, but he is well placed to illustrate the advantages of the quick development periods that current WAP content requires: "*Black & White*'s been three years now, and I'm hoping *Sorcery* will be no more than a few months."

Indeed, Friendly Giants places this brief turnaround at the centre of its philosophy. "In-house we deliberately limit any game's development to a maximum of six months," explains co-founder **Peter Scott**. "That means that anything we do has a much lower risk as far as development, and it has a much higher creativity about it, meaning that we can get more ideas out the door, and if anything goes wrong – say, if we develop a game for three months and it's crap – it doesn't threaten to bring Friendly Giants down when we have to write it off."

Evolving technology

It is fair to say, though, that massmarket gaming is not likely to appeal to the average gamer. Playing Poker or Fours on a phone doesn't really compare to the likes of *Soul Calibur* or *Perfect Dark* on a large screen, but there are a number of technologies on the horizon that raise the possibility of a more complex gaming experience over wireless



networks. The present technique for sending data over wireless networks is circuit switching, where data is assigned to a specific channel, which it hogs for the duration of a call. Future technologies like GPRS, which is designed to optimise current networks, rely on packet switching, a process in which data is broken down and sent via the most efficient route. The upshot of this development, and the 3G networks that are in the process of being established in the UK, is an increase in bandwidth, and always-on Internet access.

Doug Goodwin, the UK country manager at Motorola, highlights the advantages of such systems, stating that: "It gives the consumer far richer experience, it gives the operator a

Developers have been quick to generate WAP content, seeking to turn apparent limitations to their advantage by turning around massmarket product in a short time

far more attractive proposition to market to the consumer, it gives a better utilisation of the network's capacity, and it provides the publisher or developer a better environment for the game to be built within." Likewise, Nokia's business development manager, **Matt Chatterley**, is keen to highlight the potential impact on wireless gaming. "If you look at something like GPRS," he argues, "where the phone can just trickle information down overnight, without paying for a full time connection, you're just paying for the amount of data you download. You could download a new game, and it wouldn't download it immediately, so it wouldn't take up a major network resource, but it would download it overnight. And then the next morning you've got a new game on there, or a video clip."

Keeping it simple

Surprisingly, though, the developers themselves seem unconvinced by the potential of new technology to dramatically affect their focus on developing gaming content for a general audience. Scott sums up the philosophy of Friendly Giants by saying: "We don't want to fall into what we see as the mistakes of the traditional gaming industry, where PlayStation2 comes out and the first game that comes out has to have 3D models which have more polys than you can shake a stick at, and have to have bigger visual effects. What they've done is let the hardware lead the game design. What Friendly Giants want to do is always keep the game design first." More fundamentally, some developers hold reservations about the actual potential of next-generation wireless technology. **John Brimacombe**, CEO of nGame, is one of the doubters: "Everyone is overselling GPRS and UMTS. In practical terms, these platforms are about smoothness of response, not about bandwidth. All of this 2Mbit talk is nonsense. Somebody said to me – an operator – if you kept a UMTS device on at 2Mbits, you would rapidly grow an extra ear with the radiation burning into your head. That's eight cellular channels to achieve that bandwidth. In the end there's less room in the airwaves than in physical cable. So everyone is over-hyping what's happening in terms of bandwidth."

It does seem unlikely that 3G networks will have such a limited impact, but bandwidth is just one part of the equation. All of the major phone manufacturers are working on designs that will offer a greater degree of functionality

"Everyone is overselling GPRS and UMTS. In practice, these platforms are about smoothness of response, not about bandwidth. All of this 2Mbit talk is nonsense"

and intuitiveness. How will the current approach to wireless gaming content – which is clearly shaped by the limited interface of current-generation handsets – adapt to developments like touchscreen inputs? **Matt Kelland**, also from nGame, is sure that these developments are more significant to the evolution of wireless gaming: "The kind of games that we're looking at, we find work very successfully on low bandwidth. What I'm more interested in is finding devices with more screen estate. The ability to go to eight or 16 colours from two colours will be a major luxury. Once you've got a larger screen, that puts you on a par with something like a Game Boy. That way you can then make games that look appealing."



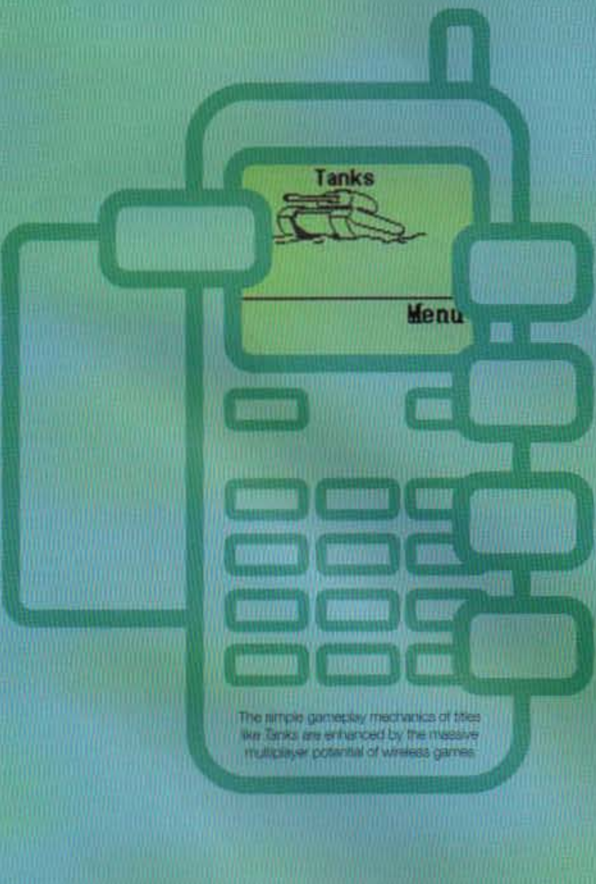
3G handsets, such as this early concept from Nokia, will offer developers more to play with



The likes of *Fight KO* can't compete with *Soul Calibur* and its ilk when it comes to attracting the attention of the hardcore

> "WAP is a bundle of things, some of which are going to be relevant to the future, some of which won't. Bandwidth is always going to be the premium"

It's reassuring to know, then, that the hardware manufacturers take wireless gaming seriously, citing such content as one element that is driving the design of future handsets. "Games and the whole multimedia future is where we want to be," outlines Chatterley. "We want to be a part of the mobile information society, we want to create it. Games are one of those things, the same as video downloads, audio downloads, that sort of thing – they're all going to be in there. And you will see future products coming out with colour screens." Motorola is equally interested in gaming content, as Goodwin illustrates by drawing attention to the company's plans to attend this year's ECTS: "[Gaming is] going to be part of an overall entertainment sector in the mobile space. We estimate that could see the market as big worldwide as potentially $200bn within five years. Interactive entertainment gaming on a mobile basis is going to be a large, large part of that."



The simple gameplay mechanics of titles like Tanks are enhanced by the massive multiplayer potential of wireless games

The road ahead for WAP

Enhanced bandwidth and superior handsets will not threaten the hegemony of the massmarket approach by themselves, but in combination with the evolution of WAP, it is possible that they will contribute to a more competitive market. Critics have been keen to attribute problems to WAP, mistakenly assuming that it is synonymous with low bandwidths and small screens. But as its supporters are keen to point out, it is an ongoing technology. "Everyone acknowledges that WAP is a transitional technology," argues Brimacombe. "WAP is a bundle of things, some of which are going to be relevant to the future, some of which won't. Bandwidth is always going to be the premium, and technologies that fix bandwidth usage, like the byte coding – which gets rid of your text transmission of the markup language and replaces it with an efficient binary stream of it – that sort of thing will survive out of WAP." The chief rival to WAP, NTT DoCoMo's iMode, is restricted by the fact that it is a proprietary format. "iMode is successful from one perspective," argues **Kevin Bradshaw** of Digital Bridges, "in that there's a lot of people on DoCoMo that use it, but it's not actually that successful in that there's only one network that you can get it on, and that's after a good 18 months. WAP is the global standard. Everywhere outside Japan, every network and phone guy is doing WAP. WAP will evolve. There's no doubt WAP is here to stay, but it is an evolutionary thing. It's not like it's going to stay like it is. Phone.com have just previewed the colour WAP browser. It looks fantastic. And you'll get GPRS coming in underneath the WAP browser. You'll get WAP browser and Java working together, just like you do on the Web. Some components of what's being done on iMode will probably be adopted by some of the content guys."





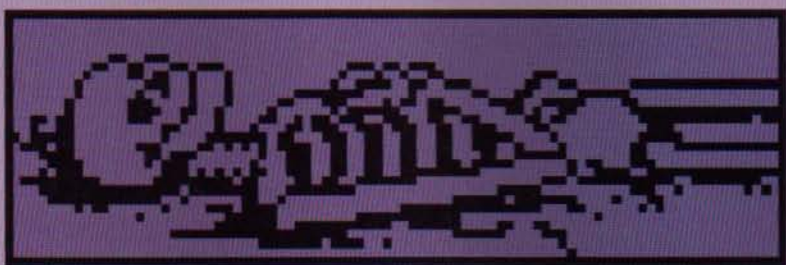
2.5G phones, like this Motorola, are similar in design to current handsets, but will benefit from increased bandwidth



Although wireless games are largely free to play at the moment, future technologies will necessitate a different approach

A changing marketplace

If a mature version of WAP does tempt more companies into the area, it is still not clear that this will stimulate the development of games which will be able to compete with a title such as *Mario Kart* on Game Boy Advance for the attention of devoted gamers. But the most significant impact of the switch to GPRS and UMTS for developers of wireless games will be that new revenue models will be necessitated by always-on network access. "As of now, we get paid by network operators in relation to how much air time we generate for them," explains Bradshaw. "These games generate a whole whack of minutes. When you get to GPRS, packet data, always-on, different kinds of gaming clearly pop up as possibilities that need different kinds of billing models. It will be a combination of either transactional fees per play – so the user might pay 10p a go – or probably monthly subscriptions for the more complex stuff which you can dip in and out of as many times as you like in order to update the game, or whatever. Clearly we're going to move from an airtime based thing to a transactional and/or subscription model." Brimacombe is more explicit about the effect that this will have on the fledgling industry: "At the moment, if you are a premium rate carrier and you do find gaming content which drives minutes, you are identifiably making money from the use of that content, which you then have some economic interest in sharing back with your content authors. That must all go away in a flat-rate data world, where the operator is no longer making any scalable return from their content, but is in fact apportioning out a scarce resource – bit transmission – between content providers. And there the entire demographic's going to reverse, so that content authors have to be the primary revenue generators and they will have to pay the carriers by revenue share or fixed fee for carriage. That is going to turn this market on its head." It is viable to cite the number of people who play *Minesweeper* and *Solitaire* to support a simple game design paradigm in an environment where such games are similarly inexpensive. It is not clear how such a model will stand up to the rigours of economic competition in an environment where consumers will be expected to pay – particularly if network operators pass on the inflated cost of third-generation licences to the consumer. Bradshaw, however, insists that there will still be a market for simple games. "There's lots of other ways to incentivise people to use simple stuff," he states. "I think there will always be people who fancy a quick game of [fours]. There's a whole load of different revenue models. They could be free, but maybe there's the odd advert in it. Lots of different ideas."

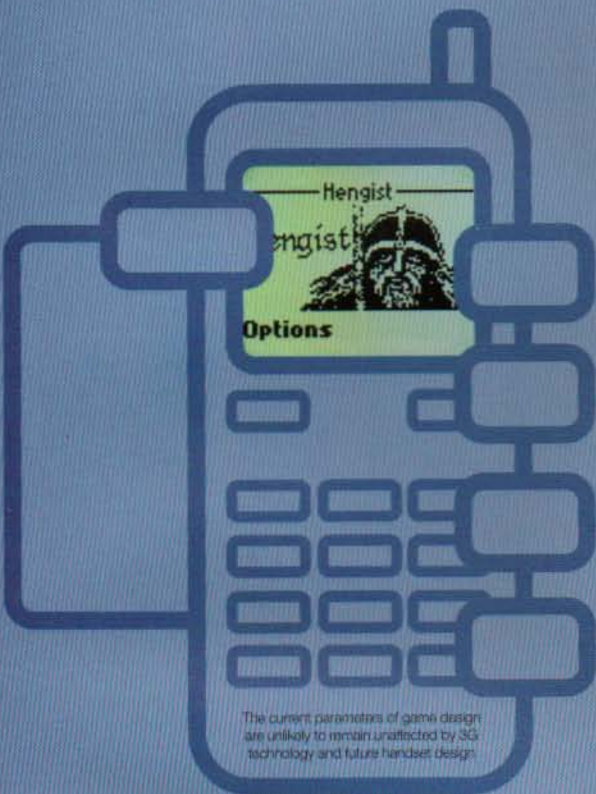


Convergence

But the Holy Grail of the communications industry – convergence – may also present developers of simple games with a threat. Like virtually every company operating in the communications industry, Motorola is planning for a convergent future. "If you look at our history, more recently in the last 11 or 12 months," argues Goodwin, "the purchase of General Instruments by Motorola, which is the world's biggest set-top box manufacturer, gives a clear indication as far as strategy is concerned that we recognise that set-top box delivery and wireless world are part of an end-game solution.

"It will be a combination of either transactional fees per play – so the user might pay 10p a go – or probably monthly subscriptions for the more complex stuff"

"We're all just experimenting with ideas, the take-up of devices is at an early stage... I don't know how anyone can be anything but positive about what's going on"



The current parameters of game design are unlikely to remain unaffected by 3G technology and future handset design

and interface between both handset and set-top boxes are very much at the fore of our mindset, and digital convergence is very much an ongoing part of our strategy."

Nevertheless, convergence isn't guaranteed. There are, of course, problems inherent in such a strategy, which are succinctly put by Jackson: "Convergence will be wonderful for gamers, but I wonder how anybody's going to get any work done." Brimacombe raises some more serious doubts: "I'm very clear that a mobile phone is not a Game Boy. Combining all of the devices I carry around with me into a single device looks like a good call for a geek. But the history of media devices is they remain enormously separate. So the assumption that PDA and Game Boy and phone will converge is, I think, a fallacious one. I'm probably a bit heretical on this, but looking at the market today, there are 700 million-plus cellphones out there, and seven million Palms. You've just got to keep those numbers in perspective. Content that works on a phone is content that recognises that a phone is a communications device, and content that focuses on communication and social interaction is the stuff that fits with the user base of that device."

Therein lies the future of wireless gaming. If it is to succeed, it is probable that a massmarket approach will be sustained simply by the always-on, inexpensive connectivity via a handset that will offer a decipherable amount of screen estate and an intuitive interface. It is another question as to whether the massmarket approach adopted by developers correlates to the expectations of the consumers, but with heightened competition brought about by maturing technology, wireless gaming looks set to offer both a broad spectrum of genres to suite the wide range of consumer tastes, and a gaming experience that can compete with that offered by traditional devices. As Bradshaw puts it: "We're all just experimenting with ideas, the take-up of devices is right at its very early stages. But I think we're at a great stage of development in what's going to be a fantastic market. I don't know how anyone can be anything but really positive about what's going on."

Further information

Digital Bridges

As well as running content channel wirelessgames.com, Digital Bridges' UNITY server provides network operators, portals and content providers with the capability to develop and distribute wireless content.

www.digitalbridges.com
wirelessgames.com

Friendly Giants

Friendly Giants develops games with massmarket appeal for clients and platforms, including Internet and WAP-enabled mobile phones.

www.friendlygiants.com

nGame

NGame has signed deals with WAP portal Mviva and AT&T Wireless Services to provide content for their services, like *Alien Fish Exchange*, a fish breeding and trading game.

www.ngame.com/index.html

Rage Software

Rage is developing a range of games for Orange that will go live in late summer, as well as a WAP version of its forthcoming *Internet Football Club* game.

www.orange.net



Wireless gaming is just one of the catalysts for next-generation handset design, but will also benefit from larger, colour screens and a more ergonomic design. Touchscreens are also likely to provide a more accessible interface for gamers

Sega's



new beginning

Sega Enterprises is no more. In its place is a raft of new companies charged with taking their parent into a new era. On an unprecedented visit, Edge spent two days at the company's Tokyo HQ and discovered a world of change

Offering frank opinions on the company's coin-op operations, their plans for the Dreamcast's future, and – as will become especially evident over the next 18 pages – a brave new world of online interaction, this month nine Sega execs, who preside over approximately 700 staff, explained to **Edge** how they are charting the way forward for a company facing its most stimulating challenge to date.

In flinging open the doors of its Japanese HQ, Sega made its intentions clear: it is comprehensively aware that the new era of electronic entertainment requires new thinking, new methodologies, and new approaches to existing technology.

Nintendo does not do this. Sony Computer Entertainment simply does not so have so much in-house talent to lay bare. Microsoft? Likewise, only perhaps more so. So, enjoy this delve inside the heads of those seeking to bring the glory days of one of the industry's proudest names back to the fore. Sega is changing, and it wants the world to know it.

Sega Rosso **Kenji Sasaki**

Best Sega game ever: *Afterburner*. Sasaki-san says it was this title that took Sega into the ranks of major players in the games industry.



Achievements: *Sega Rally Championship* (1995, coin-op), *Sega Touring Car* (1996, coin-op), *Sega Rally 2* (1998, coin-op), *Star Wars Trilogy Arcade* (1999, coin-op), *Star Wars Racer Arcade* (2000, coin-op). Kenji Sasaki (and most of the Sega Rosso staff) came from Namco. He is well known to have had a major role in the development of the *Ridge Racer* series. (List does not include console conversions.)

Staff: 40-50

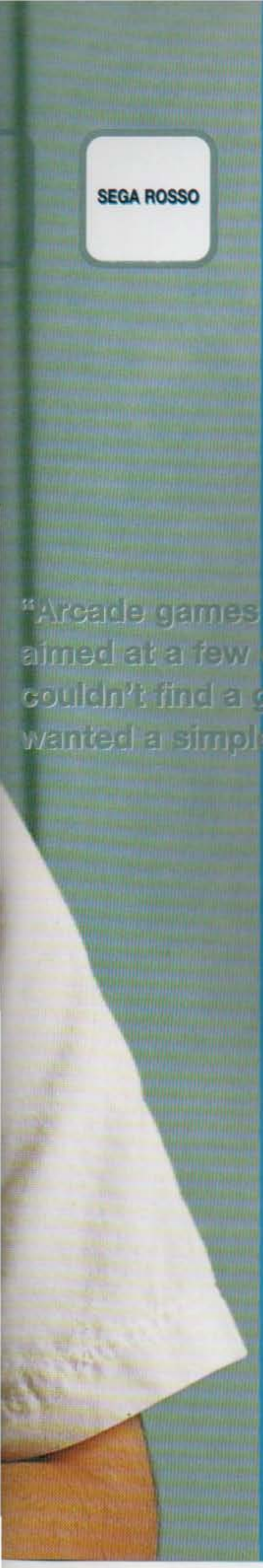


1. *Sega Rally*
2. *Sega Touring Car*
3. *Star Wars Arcade*

(formerly Soft R&D#5)



Photography: Hiroke Izumi



SEGA ROSSO

Why did you choose the name Sega Rosso?

We thought it was important to maintain the strong image that Sega has in the arcades. Traditionally, the Sega brand is associated with the colour blue and the idea that 'it is cool'. But someone in the team suggested it would be better to have a hotter image. Putting the Sega logo in red was one suggestion, but it wasn't really suitable. We discovered that red in Italian is rosso and 'Sega Rosso' sounds great. We had about 100 other suggestions, but in the end 'Sega Rosso' was the best. I mean, it's perfect.

What will your development policy be now that you are a separate company from Sega?

Well, racing games are our main achievement and our foundation, and we want to keep it that way. There is still a lot to do in this field, but I will only launch another title when I have something really new. Until then we will concentrate on other genres. Shooting games are now an important part of our company with the *Star Wars* series. And we want to develop network games, too. Basically, we will develop across all Sega's markets, from the Dreamcast to 'eCS' (e-consumer), but with the arcade as our main market. We have diversified and we will develop any new ideas we come up with. For example, we did not start *Card Captor Sakura* because of the licence [it's based on an anime series], but because of the concept. We hope to reveal a playable version of this in the autumn.

"Arcade games had become too exclusive, aimed at a few core users, and even I couldn't find a game I wanted to play. I wanted a simple concept for everybody"

What projects are you developing right now?

We have four lines, so we have four titles running at the moment. The first one is the *Star Wars Racer* coin-op. The game has already been released, but for technical research reasons the line is still active. The second is *NASCAR*. It is nearly complete and will make its debut in late summer. The third is a Dreamcast title called *Card Captor Sakura*. The last one is *Cosmic Smash*, a simple idea that's good fun. Arcade games had become too exclusive, aimed at a few core users, and even I couldn't find a game I wanted to play. I wanted a simple concept that anybody could enjoy in the arcade, and that's *Cosmic Smash*. Looking ahead, Sega is developing its arcade network based on optical fibres. It's called eCS and I definitely want to develop titles using this feature – not adapting existing titles, but producing original games based on eCS to introduce new gameplay and new concepts into the arcades.

Are you planning to network Dreamcast and arcade games together?

Initially, I doubt we would be able to port the eCS concept to home gaming. It's very hi-tech, and the home entertainment level is just too limited at present. In the future it will be possible to link arcade games and consoles, creating a large online community, a virtual gaming zone. But eCS will be exclusive to the arcades for a while.

How do you think eCS will change gameplay?

Focusing on the network issue could result in poor content. Including an eCS option in an existing game or using it to make VS play possible on a large scale is just not viable. For example, I think that *Sega Rally* is a great title, but I don't think it would be more fun just because of eCS. So, any project should be network based from the beginning in order to create a truly new entertainment. I can't really tell you what will be different at this stage. Let's just say that we are studying the system and thinking about new ideas. I am beginning to visualise what would be great, but I need more time. I think we'll come up with a few projects to illustrate the potential of eCS next year.

What is the most important thing Sega should do now?

I think that Sega needs to listen to the users – both arcade and console. It is no good developing games in a particular genre simply because it happens to be successful at that point in time. You would always end up one step behind. No, Sega should observe and understand the users.

The arcade market is not performing well, so the Dreamcast must be vital for Sega's survival. As the Dreamcast market is focusing more and more on the USA, will Sega Rosso design games for the Americans? After all, Soft#5 had a strong European flavour because of *Sega Rally Championship*. I have to admit that we love Europe at Sega Rosso, and maybe *Sega Rally* is one reason. Maybe because Europe is the centre for racing. Anyway, I tried to make the game as universal as possible despite its cultural content. I don't think the arcade market will disappear. It is not going very well, but it is not dead. Of course, if people continue developing games in the same way they always have, the situation will get worse – we need evolution. We are not about to abandon arcades for consoles so we will try to continue to give our titles their universal appeal.

How can you attract people back into arcades?

I believe a game's interest is independent of its technology. I think people are developing arcade games using concepts and methods designed years ago. That's why users are bored now. It is fundamental to rethink the core of the game design. Innovation is essential when you are in crisis – it is the only way to survive. Sega Rosso will try to make several original games. I know it will be difficult and risky, but I would like one of these projects to be a hit – my dream is that Sega Rosso will be remembered for creating a key title in the games industry.

Are you thinking about working with other companies or developing for other platforms?

We are already collaborating with other companies on several projects, including *Star Wars* and *NASCAR*. As for other platforms, we will stick to Sega's. Don't forget that we're still 100 per cent owned by Sega Group.

How will your new-found independence change the way you work?

We are the smallest AM unit in Sega – we have less than 50 staff, so we are not a big structure. I guess work here will not change much. I will still work on games, but there will be more business tasks to accomplish.

OverWorks **Noriyoshi Oba**

(formerly Soft R&D#7)

Best Sega game ever: *Shinobi*. Oba-san would have preferred to pick *Sakura Taisen* instead but, according to him, it divides players – some love it, while others think it isn't really a typically Sega-style title.



Achievements: *Super Wonder Boy In Monster World* (1988, coin-op/MS), *Super Shinobi* (1989, MD), *Bare Knuckle* (1991, MD), *Bare Knuckle II* (1993, MD), *Super Shinobi II* (1993, MD), *Bare Knuckle III* (1994, MD), *Clockwork Knight 1/2* (1994, Sat), *Clockwork Knight 2/2* (1995, Sat), *Clockwork Knight Complete* (1995, Sat), *Riglord Saga* (1995, Sat), *World Advance Taisen* (1995, Sat), *Sakura Taisen* (1996, Sat), *J-League Pro Soccer Club Tsuku* (1996, Sat), *Riglord Saga 2* (1996, Sat), *World Advance Taisen Files* (1996, Sat), *Advanced World War* (1997, Sat), *J-League Pro Soccer Club Tsuku 2* (1997, Sat), *Sakura Taisen Colums* (1997, Sat), *Deep Fear* (1998, Sat), *Sakura Taisen 2* (1998, Sat), *GuruGuru Onsen* (1999, DC), *Sakura Taisen* (2000, DC).

Staff: 80

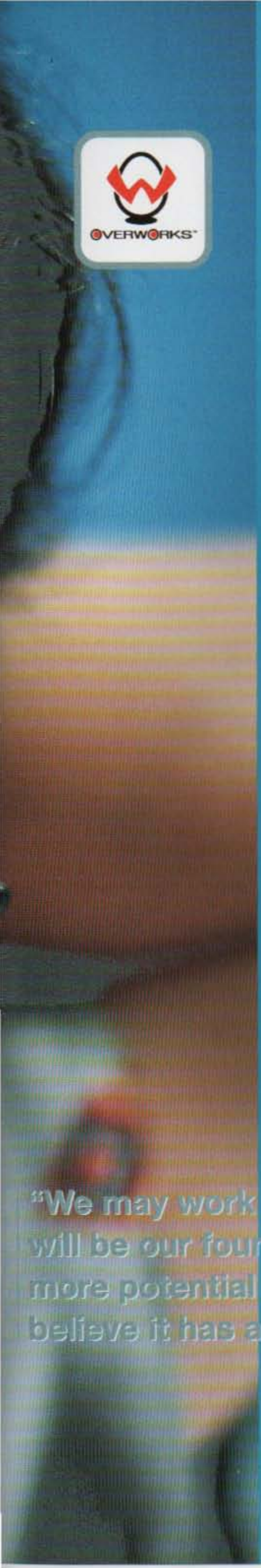






1. *Super Wonderboy In Monster World*
2. *Super Shinobi*
3. *Clockwork Knight*





So, what about the name – Over Works? Is that related to your staff being overworked?

Oh no! Over Works is simply the diminution of 'Over Quality Works'. I know it is a bit confusing. The basic idea is: 'Let's make the ultimate quality product'. We are based on the former Soft#7 department. Our main achievement on the Saturn was the recent *Sakura Taisen* series. [There is a strong probability that Oba-san chose the name Over Works as a way to include his own name. In Japanese, 'over' is pronounced 'oba'.]

What titles are you working on?

We have three titles on the way. *Eternal Arcadia* is at beta stage and *Sakura Taisen 2* is in its final debug stage. We will try to include a few additions with it, such as a demo disk of *Sakura Taisen 3*. We are quite proud of what we have done on *Sakura Taisen 3* – I think we have achieved state-of-the-art visuals. We are redeploying more and more staff to *Sakura Taisen 3*. *Sakura Taisen* and *Eternal Arcadia* will be the heart of this company, but we will also develop any other interesting ideas. We have already released a Dreamcast title called *GuruGuru Onsen*, which is a network party game. This aspect will be the second great strength of our company, as we want to develop and grow a true 'Web community'.

And how will you develop that?

GuruGuru Onsen was a great experience. There has been a greater interest among users for the online feature than we expected, and the price was very attractive at ¥300 a month. When people try an online experience, they are tempted to go back again and it can become almost a habit. On average, users were playing for around three hours each time. So there is a market. But until now, the online aspect of a game has been optional. There was the game and then the network play as a bonus. I think it is time to really design games for online use. I am starting to see how it is possible, but I will need this year before the ideas become reality.

How will you attract more people to the Dreamcast?

That is our main problem, and I think we will face it for some time. I think the network issue is one answer. The mobile phone is generally presented as the competitor to videogames, but I don't believe that the Internet is the reason. If people want to invest so much money in mobile phones it is because it creates a community, it allows communication. I think this is the field to work in. Developing well-adapted games and contents to create this 'Web community' – which is my key phrase – around Dreamcast would boost the platform greatly. I want to work on it.

"We may work on PC, but the Dreamcast will be our foundation. The machine has more potential than you may think, and I believe it has a second chance"

So what will Over Works be concentrating on?

Without a doubt, the Dreamcast will be the core of our developments. However, I think other platforms may be included, such as PC or network systems. But the Dreamcast will be our foundation. The machine has more potential than you may think, and I believe it has a second chance. At Over Works, we have four lines and we expect to release six projects a year.

How do you think your current projects will sell?

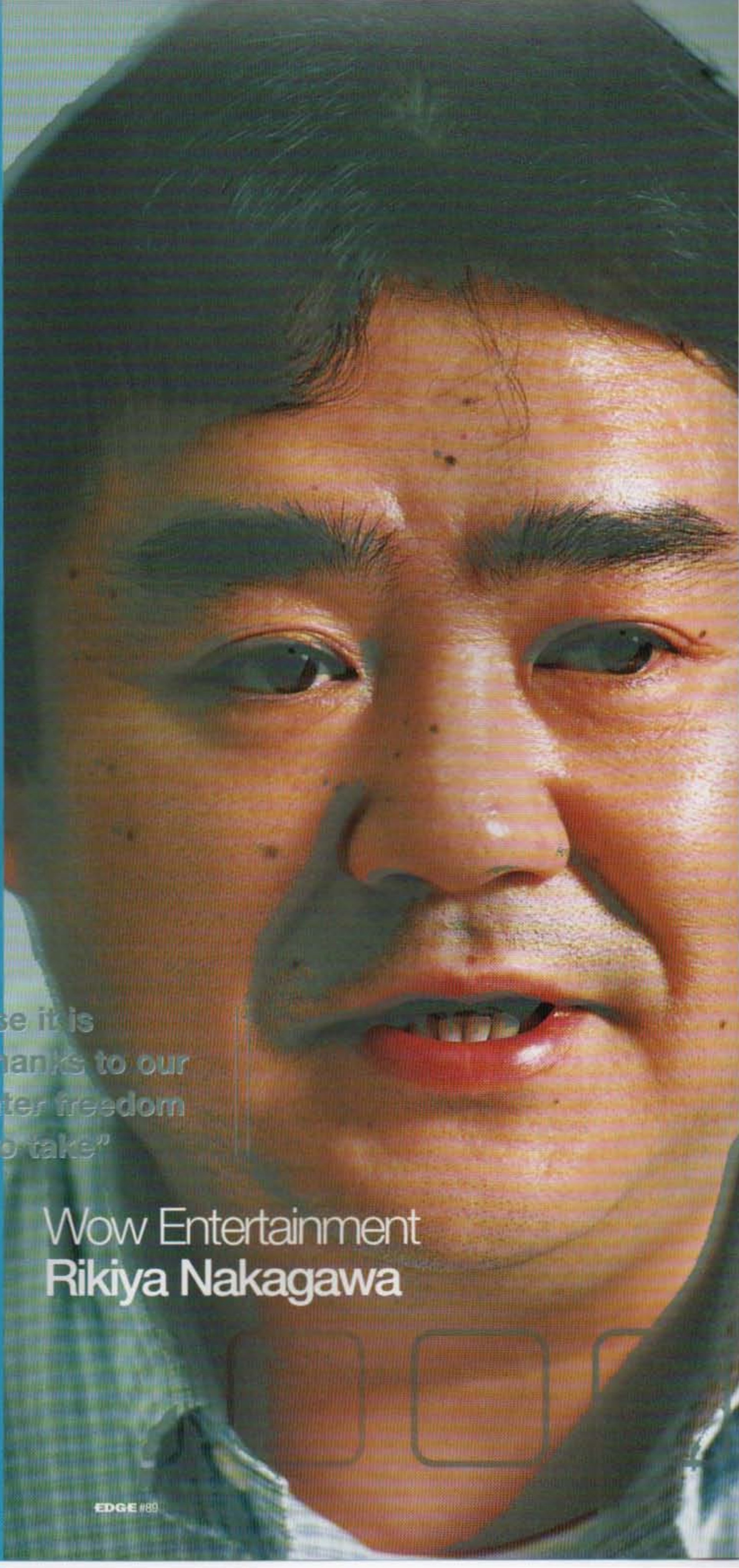
I would like *Eternal Arcadia* to perform like *Final Fantasy*. At least, it would be great to sell a million here in Japan. However, given the market, I will be happy if it reaches 500,000 copies, but it should do well overseas, particularly in the USA. I think *Sakura Taisen 3* will be great. It has so many fans and both episodes did very well on Saturn. I want the game to be released overseas, but it hasn't been confirmed yet.

Best Sega game ever: *OutRun*. "Its fun and its atmosphere are symbolic of the Sega spirit." Nakagawa-san thinks this spirit is missing now and would like to see more games like *OutRun* to revive Sega's dynamism and creativity.



Staff: 120

(formerly Soft R&D#1)



"We have to innovate because it is essential. I would say that, thanks to our independence, we have greater freedom to decide what level of risk to take"

Wow Entertainment
Rikiya Nakagawa



Why Wow Entertainment?

I wanted a short name that is easy to learn and easy to say. I wanted a brand with two elements and two katakana in Japanese. I also wanted the name to work worldwide so it had to be present in the English dictionary. We came up with Wow, which actually sticks perfectly to our image.

Will you continue to be mainly a coin-op developer?

Until now, we specialised in arcade titles but with a foot in the consumer market via ports. As it is not satisfying us, we are going 50/50 arcade and console, with games designed from the beginning for their target market. That way we will introduce as much originality as possible in both fields. We will keep our most popular series, like fishing titles and *The House of the Dead*, etc. We will also keep porting successful arcade titles to the console, when possible, by adding content, network features and more novelties to really adapt them for the console. Console users expect more from a game than in an arcade.

Which platforms are you targeting?

I say: "Let's do whatever is good." I mean, entertainment is more than just arcades and consoles. We have worked in the games industry for years now and we have the experience, the knowhow, and the resources to touch any kind of entertainment. For example, we can design Web or i-Mode content. We are already designing content for Kodansha and NTV on Docomo Internet colour mobile phones.

Moreover, Soft#1 used to take charge of technical aspects of the Naomi development. We programmed most of the graphics library. Now everybody is independent we are losing part of the structure we benefited from before, but I intend to maintain the way we worked. For example, we will develop Naomi's network library and continue to share our knowledge with other former AMs.

What projects are you developing right now?

We are developing numerous titles for both arcade and console markets. We have 12 to 13 production lines. I know it is a lot, but we are used to developing many different kinds of games, from puzzle and quiz titles to big cabinet games. We have just finished a baseball title for the USA, *World Series Baseball*. It may come to Japan as well. *Giant Gram 2000* has also been finished, despite the split in the Japanese professional wrestling association. There are two federations now, the old and the new one. We managed to get both licences, so *Giant Gram 2000* will represent both federations. For the Dreamcast, we are adapting our *Marine Fishing*, the sequel to *Get Bass!*. It will have more content, network compatibility, and the game should be released for the autumn. And there are also three titles in preparation for the coming JAMMA show, but I can't tell you too much about them just yet.

What changes are there now you are independent?

We had both fears and hopes of the change. Since every former AM is now separate, we have lost some synergy. We used to share resources on several developments, but now it is difficult – or at least different. But there are good things too. When we were AM1 or Soft#1, we had to stick to planning and didn't always have the proper time, the proper resources. We often thought that a title would have been much better if we had changed one aspect or had more time to finalise a feature. Now we can take the necessary time to finish a project properly and test our ideas at every step of development before releasing a title onto the market.

Will you be aiming your games more at the west?

No. We have one line based in the USA, and it is taking charge of this market by designing titles exclusively for it. The team is coming up with lots of ideas. As we have a popular arcade baseball series here in Japan, the team thought it would be great to make an American counterpart based on the Major League. I thought this was a great idea, so they developed *World Series Baseball*. So, no, Wahoo will continue to make games as Soft#1 did before.

What is the nature of your collaboration with other companies, like NTV?

The project with NTV [Nihon Television], was to see what a TV channel and a game maker like Sega could produce together. We brought realtime animated CG characters to NTV's CG movies, and the collaboration produced results that will be used in several ways including videogames. We are working on four TV programmes and want to continue the collaboration, since we are learning a lot through it. We are reaching a huge number of people via television.

We are working in very close partnership with Kodansha, too. The collaboration is based on the manga *Aah Megamisama* and we had the direct help of its creator. This collaboration has opened the doors to i-Mode for us.

What does Sega need most right now?

Good games! During the 'bubble age' in videogames, any title could clock up reasonable sales. But now we have to come up with new ideas, and networking is certainly one of them. I believe it will play an important role in the coming years. However, I don't think there is any one track to success in this particular field – we have to try any viable ideas. Let's make different uses of the network: communication, VS play, the mix of both, etc – I have a few projects in mind. People will be able to experience network play adapted to their profile. Arcade or console, I don't see a big difference. Videogames are technically about looking at a screen; the network is then about gathering people in a virtual space via hardware and a screen. The difference lies in where you are playing.

What about multiformat games?

For the time being, we are only working on Naomi and the Dreamcast. However, we want to port our most successful titles to the PC. We will reinforce our partnerships with other companies.

Will being independent limit project budgets?

I have to admit that it will. We have to take care of our own finances, so we must be careful in order to be profitable. I would prefer not to have to think about it, but we have to run a business. When you invest in a project, you expect a result, but there comes a point where you have to overlook the financial aspect to let the creativity continue. It is a balance I have to manage carefully now. But we have to innovate, because it is essential. I would say that, thanks to our independence, we have greater freedom to decide what we develop and the level of risk to take. However, as we are a 100 per cent subsidiary of Sega, we get our finances from it and it has a say in the decision of whether or not to develop a project.

Best Sega game ever: *Virtua Fighter*. It is not really Naka-san's favourite Sega title. In many respects *Sonic The Hedgehog* made the Mega Drive successful and Sega a major player in the console market. But *Virtua Fighter* is the perfect image to represent Sega's spirit, he says: "It is 100 per cent gameplay, sober and very advanced."



Achievements: *NiGHTs* (1996, Sat), *Sonic Jam* (1997, Sat), *Burning Ranger* (1998, Sat), *Sonic Adventure* (1998, DC), *ChuChu Rocket* (1999, DC), *Samba de Amigo* (1999, arcade), *Samba de Amigo* (2000, DC). Naka-san is also known to have worked on the *Phantasy Star* series and, of course, he created the *Sonic* series, which helped to make the Mega Drive such a major hardware force in the '90s.

Staff: 70 (including Sonic Team USA)







1. *Burning Ranger*
2. *Samba de Amigo*
3. *Phantasy Star III*

"I think Sega is lacking that certain something. I used to buy and play lots of Nintendo and PlayStation games, but now I can't find one good title"



Sonic Team **Yuji Naka**

Why did you keep the 'Sonic Team' brand?

When we released *Sonic* in 1991, Sonic Team appeared as a team name. It was with *NiGHTS* that the name became a true brand. When we had to come up with a name for our company, it was an obvious idea to keep the same brand, Sonic Team, since it is famous and reflects our main achievements so far.

What is Sonic Team's strategy going to be?

We want to continue to make videogames enjoyed by kids around the world. However, using the network feature, we would like to create a new style of videogame. I call this 'Live Entertainment'. In the case of *Samba de Amigo*, both the players and the people who watch the players enjoy the game very much. We want to use networking to build up Live Entertainment. One of the aspects of Live Entertainment will be called 'Mobile Entertainment'. As you know, I signed a deal with Motorola so several titles based on Sonic will be released on mobile phones. Then I aim to link the Dreamcast to these mobile phones. I think this is a fascinating idea – users can play at home with the console and take the game outside using their phone. That is one application; I'm studying its full potential. We are working with Nokia and Motorola on games based on Java. I believe my company is the best place to develop this technology.

I would like to limit sequels. I think that Sonic Team has always tried to innovate as much as possible to find new ways for games. I believe it is important not to become trapped in a conservative and defensive logic – I want to keep my heart open to new ideas and keep my company as innovative as it has been.

Will being independent change the way you work?

It is too soon to tell, but I don't think Sonic Team has changed very much. We often developed our titles in-house with no relation to outside partners anyway. Maybe we will have to develop more relations with others companies in the future. Personally, I will still work as director and producer in addition to my new role as CEO. As far as the relationship between my office in Japan and my subsidiary Sonic Team USA is concerned, the Internet is a great help to transferring data easily between the two offices. I can supervise *Sonic Adventure 2* development which is going on in the USA. When I made *Sonic* I was in San Francisco. *Sonic* was incredibly successful in the States, so we decided to develop *Sonic 2* there. Similarly, I decided to create Sonic Team USA in order to take charge of *Sonic Adventure 2*.

As for the content of the titles, I think it is important to create games that involve more players. I think that my titles were, until last year, fairly standard oneplayer games. However, I don't want to change the content of my games too much. I guess I will decide on a case-by-case basis according to the project.

What does Sega need most right now?

I think Sega is lacking that certain something. I used to buy and play lots of Nintendo and PlayStation games, but now I can't find one good title. I mean, I think the Dreamcast is very good hardware and its titles are very interesting, but I really think Sega is lacking that little something. I believe many users are interested in the Dreamcast but they simply aren't buying it. I don't know why and I'm searching for the reason. I'm trying to develop something to provide Sega with that little element that will make the console successful. I think it is vital for Sega.

I really think the Dreamcast is a great system, but the most important aspect of a console is certainly the games. I believe games on the Dreamcast are far more interesting than on PS2, for instance, but PS2 had a great start. Is the success of a console simply a matter of polygon numbers or marketing skill?

Are you planning to develop more arcade titles?

That was a great experience, but I don't know. Consumers are my main market, but I would like to reserve one of Sonic Team's four lines for an arcade title. I'm planning to release a new version of *Samba de Amigo* in the autumn but, as with the original, I am having lots of problems licensing the soundtracks, although the game itself is finished. This new *Samba de Amigo* will be released as a simple ROM conversion so the operators won't need to change the cabinet. I've included many novelties as new moves. Actually, it is very funny! It'll be at JAMMA.

Are you satisfied with both the arcade and console versions of Samba de Amigo?

Oh yes, I'm very satisfied. The arcade version was a complete success. On the Dreamcast, the demand is high but sales have been limited by low production of the maracas controllers. They need a special chipset for the motion sensors and it is quite hard to manufacture them. Still, it is the first time a videogame company has made such a move for the home market.

Is developing Phantasy Star Online a good experience, given that it's your first full online title?

Yes, it is a very rich experience, but it takes so much time – originally I wanted the game to be released in March. Setting the network feature is so difficult. When I hear that *Diablo II* took two years of development I quite understand. Lots of changes are happening during development, so the project is never-ending. But, as the Sonic Team is now a company, we have to limit delays. So I have to manage both aspects: deadlines and protection of the content. Plus there is the problem of the servers. The Internet is basically for governmental and educational use and hasn't been built to support videogames. I don't know one company designing servers exclusively for online gaming. I have the feeling that we are forcing the servers to accept games. But it is a very interesting tool that has enabled gaming to reach a wider public. I kept this in mind when developing *Phantasy Star Online* as the game is scheduled for a worldwide release. On that topic, I would like to add that I have always designed worldwide games. I will continue in this way and the Internet is proving very interesting as it will allow players from around the world to enjoy the same experience together. I also intend to take the Asian market more in to consideration.

What do you intend to do with networked games?

Personally, I'm very interested in network play, but it is still very difficult to implement. Present network gaming is at an early stage. I guess it will have a major role in the future and playing online will become a standard genre. On consoles, for the moment I see the network as a simple continuation of what has been done on PCs. *Final Fantasy X* and *XI* are not the killer applications that will make online gaming standard on consoles. These titles are, however, a good first step in helping network gaming to grow.

I believe network gaming has many virtues. Humans need to communicate and networking allows that on a large scale. When Capcom made *Street Fighter*, nobody had thought about the possibility of two players sharing the same experience, yet now it is so common. So, I think network play will develop in the coming years and I would like to be the one who develops the *Street Fighter* of the online age. There are hundreds of developers on this Earth who are doing the same, but I really dream of being the one. In this context, *Phantasy Star Online* has to be seen as the very first step. There are many people who have not yet experienced any online entertainment on a PC and I would like them to start via a console and *Phantasy Star Online*.

SONIC TEAM

Best Sega game ever: *Virtua Fighter*. Nagoshi-san witnessed the whole process of *Virtua Fighter*'s birth as he was at AM2 at the time. It was the first time a developer had built a game based closely on the model of a human. The technology proved a challenge, and he thinks the game shows off Sega's achievement and spirit perfectly.



Achievements: Nagoshi-san has created some famous series in his time, starting at AM2 where he developed the *Daytona USA* series, *Scud Race*, and the *Spike Out* series. Amusement Vision includes teams that spawned other series such as *Virtua Striker* and *Virtua Fighter*. As former Soft R&D#4, Amusement Vision has already developed *Virtua NBA*. (List does not include console conversions.)

Staff: 50-60







1. *Scud Race*
2. *Spike Out*
3. *Virtua NBA*

(formerly Soft R&D#4)

"I would like arcade and console games to be developed separately. The projects should be designed from the beginning according to their target market"



Amusement Vision Toshihiro Nagoshi

How did you choose a new name?

Originally I wanted to keep Sega in my company name – I joined Sega because I loved the company and its image. But then I was told that Sega Group would appear on our business cards and documents anyway. Plus, can you imagine how long the name would be? I always thought Sega Enterprises was too long. 'Amusement' is the core market of my company and 'vision' is a term I have loved since university, as it suits our creative spirits perfectly. Vision is vital for creation. Of course, I asked my employees for ideas, but I could not forget the word vision. I know 'AV' is quite confusing [it represents 'Adult Video' in Japan], but in the near future adult videos will be streamed so there will be no more use for videos. At that point my only rival for the name will disappear – and when people talk about AV, they will be referring to Amusement Video!

What is your development strategy going to be?

Our first title was *Virtua Striker 2 v.2000* and for the moment the company is focused on arcade games. I will reveal a new title for the JAMMA show. I don't want to change our nature as a game maker, so I don't want to go into other markets. But I would like to use all the technologies available to introduce new ways to play. For example, CSK possesses lots of interesting technology.

Which platforms will you develop for?

Of course, as we are 100 per cent owned by Sega, we are developing for Sega's hardware. But I would like to develop partnerships with others companies. If we find something interesting, we will go in that direction and talk with other companies as necessary. We will buy engines if they are needed for some of our projects. Basically, we would only collaborate with other game companies, as it is our only market. But I don't want to make titles on the model of blahblahblah VS blahblah-blah. Any collaboration would be based on a common development of an original title using the particular skills of each side. I think the Dreamcast will be perfect for that sort of project.

What kind of titles are you developing?

I think we are well known worldwide for several famous action titles, such as *Virtua Striker*, *Virtua Fighter*, *Virtua Racing* and *Spike Out*. We are very action oriented. These titles are a heritage from our previous experiences. I would rather not make sequels to these series, but I know it will be necessary, since fans are expecting new versions of popular games like *Virtua Striker*. Plus, it is profitable. But I'd prefer to make new, original series under the Amusement Vision label.

We have around 50 staff who are not exactly divided into teams, but let's say there are four teams in our company. Our main title is *Virtua Striker* so far, as it sold more than 10,000 arcade units worldwide. There have been many versions, but now the Japanese understand soccer better – a few years ago nobody understood 'offside'. Now they know, so we can design a new *Virtua Striker* encompassing more aspects of the game.

Basically, I would like arcade and console developments to be separated. The projects should be designed from the beginning according to their target market. I have no plans for eCS yet. There are projects emerging inside Amusement Vision, but they are not viable yet.

Are you planning conversions of well-known arcade titles for the Dreamcast?

I have a few titles in mind, but not all arcade titles can be converted to console. I don't really like porting arcade titles to console – not because I don't like the consumer market, but simply because it is difficult to make a satisfying conversion. Many titles are converted because of their popularity, but as a console game they are too limited. I don't want that.

What does Sega need most right now?

I guess Sega needs to think and study again what the Internet is. At Sega we hear so much about network play, but I haven't met anyone who really understands it or who can predict the Internet wave. I don't believe it is Sega's problem. Many developers still think they have time before networking is a reality, but they are already out of date. Anyway, when you work it is important to understand your tools. If you don't, how can you expect to make a good quality product? How can you expect to learn while working? It is just unrealistic. I don't think Sega is late, but it is important to study the concept. Sega and CSK built so many Internet structures, for example with ISAO, but it is important to have the services first. Sega's network strategy is right, but without services it is useless. So ISAO should think about what kind of services it is essential to provide to users. I would call it 'Network Entertainment Services'. 'Network' can mean many things – it can be phones, etc – so let's focus on the entertainment services. For me, 'network' means 'services'.

The VMS and ISAO are good concepts for the online strategy Sega and CSK are developing, but the companies shouldn't expect any results without the services. I'm thinking of a game for the Network Entertainment Service – it is a long time since I have developed a console title, but I would like to use it to get experience in the online field.

What do you think about [illegible]

It could be great. I'm learning how to work on the Dreamcast and I must say that the console is well designed, leaving aside any consideration of polygon numbers. So even though I am only planning to work on arcade titles for the moment, I would like to develop Dreamcast games in the near future, as well as the network project I'm thinking of.

So how about Planet Harrier? [A demo is running on a looping video]

What? No, no, it is a simple demo I programmed for all of you. I thought you would be bored with all the old titles on video. I made this demo just for you. It would be fun if it became a game.

What is your biggest expectation as CEO of Amusement Vision?

During my years at AM2 and AM4 I have designed different kinds of games. I have touched all the major genres, so I think I have a good experience in the games industry. Plus, I have highly skilled staff who can make innovative games. I really think we can make titles based on our creativity rather than on marketing. But since Amusement Vision has to survive, it won't always be possible to follow our creativity. My dream would be to initiate or create a new kind of game, to open a new way.

What sort of games do you personally like?

I don't have a particular genre in mind and it would be difficult to name one title. I think it is because I really like the titles I have made or am making – it is my main motivation. Of course there are aspects of my creations I don't like, but the positive aspects are much more numerous. I haven't really had any negative experiences during development. Videogames are my life, it is the way I have chosen. So I think I'm very happy with my life. But if I can't name a particular genre I like, at least I can tell you that I'm not fond of RPGs.

Note: Mizuguchi-san elected not to share what he perceives to be the best Sega game of all time

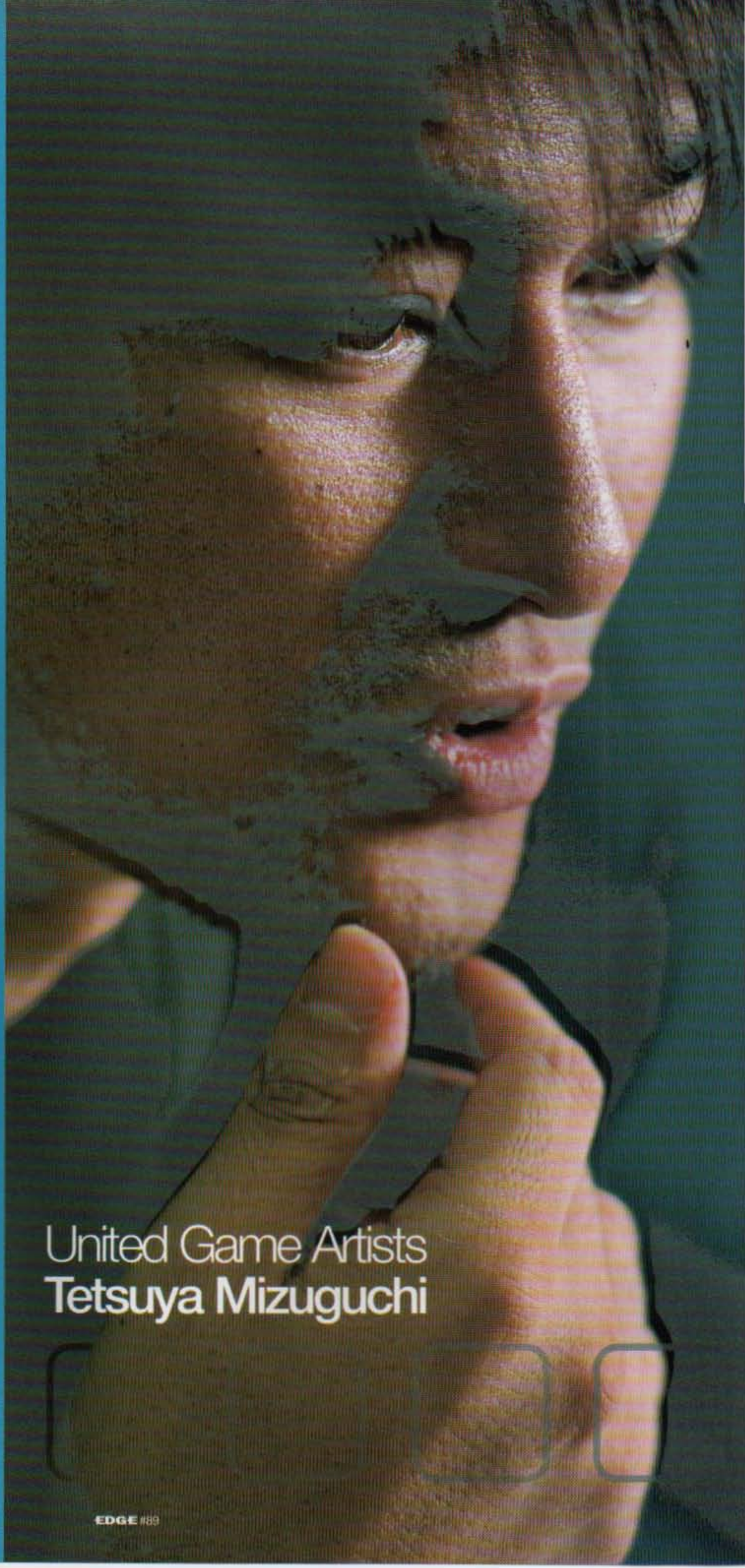
Achievements: In addition to *Space Channel 5* (1999), Mizuguchi-san has worked on numerous titles, including *Megalopolis* (1992, ride), *KomeKome Live* (1992, ride), *Sega Rally Championship* (1995), *Manx TT* (1995), *Sega Touring Championship* (1996), and *Sega Rally 2* (1998). (List does not include console conversions.)







Space Channel 5
Manx TT
Sega Rally 2



United Game Artists
Tetsuya Mizuguchi



How did you arrive at a name?
I have had this name in mind for a long time and it is a concept I have been wanting to put in to practice. When I was given the opportunity of having my own company within the Sega Group, I decided to take my concept as my company name. Each member of UGA is a creator, a videogame artist. Our goal won't be, for example, to develop for a particular market like Japan, America or Europe. No, our 'market' is the human being. So our orientation will be universal – I want to make games for a worldwide audience.

What projects are you developing?
As a game producer, I'm much more focused on the creative aspect than on the administrative and business sides. Today, I'm in a suit, but normally I'm in far more relaxed clothes. Since taking on the company build-up, I have been really busy. In fact, I have experienced a lot of stress. But we have started at last. And from now on, if we manage to make great titles, my stress will disappear.

Anyway, we have two projects at present; one is still at a very early stage. I'm nervous, as I'm watching them take shape. I'm aiming for a 2001 release for the more advanced one. I want to introduce an original concept, very different from *Space Channel 5*. And... and... okay, let's talk about this game in detail. No? [His assistant is telling him not to say anything.] All right... I would like to talk about this game so much. So I have nothing to say? [Looks at his assistant.]

What are your goals for this year?
With *Space Channel 5*, we had a precious experience. The team that worked on it – around 25 people – is now much more confident. It is like passing from Serie B to Serie A [in the Italian football league] and competing for the championship. There is another team I would qualify as still being Serie B class. I would like to spend a lot of energy creating a real UGA culture inside the company and then focus on other matters next year, based on this creative environment.

> **"I compare what happened inside Sega with the movie industry in Hollywood years ago. The media, the production, and the distribution were separated"**

As UGA is 100 per cent owned by Sega Group, we will work at taking Sega to the top. I compare what happened inside Sega with the movie industry in Hollywood years ago. The media, the production, and the distribution were separated. I think it is the same in Sega Group. I'm quite excited by that, and I believe it was a good move by our chairman and CEO, Mr Okawa, even though it is not easy since the business issues have to be considered. We have to survive and create at the same time. I can't tell you how long it will take, but, as a producer, as a games studio, I want to be the number one in the world.

Are you considering developing anything other than console games?
What is great about the consumer market is that you can reach a huge number of people. I know the arcade market quite well, as I have produced several racing games, but there you reach mainly male users – and in some countries, children aren't even allowed into arcades. I have many ideas, many concepts to share with people, so, for the coming years, I will be developing for consoles. But I'm not the only person in UGA, and it is important to take into consideration everybody's ideas and aspirations. It is a kind of human chemistry and it is important to manage it. Projects will emerge as a result of this chemistry.

What does Sega need most right now?
I would say there should be fewer barriers. To entertain a large number of people, you need a certain power, charisma. Working hard for a few months is not sufficient, as the process takes a long time. It is a long, drawn-out job to create a culture, an image, and it is still essential for Sega, even though all the teams are separate and operate independently. I would say that what Sega is doing best is carrying on. Sega can continue for a long time as a console maker and as a game maker, but I would like Sega to think again about the foundation of its consumer business.

What do you think about network gaming?
I have a view on the next five years – I'm very excited and I even have difficulty sleeping. However, I'm not thinking of entering the network business yet. I know it is the network boom in Japan and nobody talks about anything else but, in my view, it is something you have to think about carefully before making a move. I will wait until I have a solid project, but I really want to work on network titles. I'm not sure that network gaming will take place on consoles when it matures – it's possible that a new kind of hardware or platform will appear in five years, changing people's habits.

What kind of games do you want to develop?
I don't have any genre in mind. I don't even differentiate between an adventure game and an RPG. I'm much more interested in fun or feelings and particularly in how to put them into a game. With *Space Channel 5*, people wanted to put it in a category and I had to agree with every suggestion: action, musical, dance. It was a problem for me as the game had no particular genre to fit into. So for our new titles, I will let users decide themselves. I would rather develop taste and feelings through my games as I did with *Sega Rally*. It is one of the foundations of UGA, developing cutting-edge or popular stuff.

Are you considering external collaborations?
As a matter of fact, it is already happening. Among the 60 people working at UGA, there are several people who don't come from the games industry. They are specialists in various fields: visual, dance, DJ, sound etc. They are integral to numerous stages of the game development and they usually help me design the game concept. It's a way of working I want to continue at UGA.

United Game Artists

Best Sega game ever: *Virtua Fighter*. "When I saw the game for the first time, I was so impressed. It is so Sega. It is stoic and so advanced at the same time. There was also another title, developed in a section just beside mine: *Super Shinobi*. This is another great title, running on the Mega Drive. I loved its stoic image."



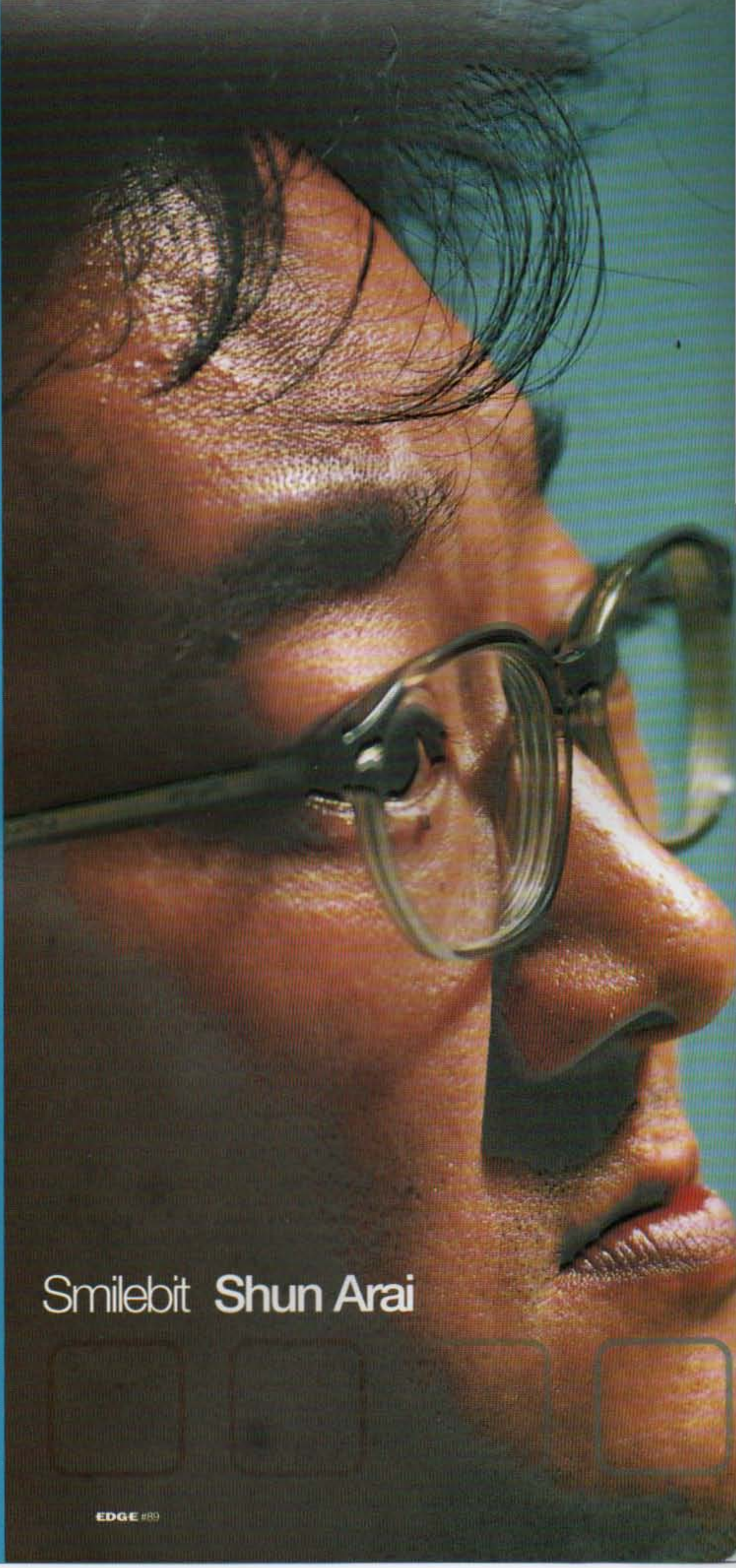
Achievements: *Sega Rally 2* (1999, DC), *Pro Baseball Team Tsuku* (1999, DC), *Pro Baseball Team Asobo* (1999, DC), *J-League Pro Soccer Tsuku* (1999, DC), *The Typing Of The Dead* (2000, DC), *Jet Set Radio* (2000, DC).

Staff: Approx 105



1. *Sega Rally 2*
2. *The Typing Of The Dead*
3. *Jet Set Radio*

(formerly Soft R&D #6)



Smilebit **Shun Arai**

Why did you choose the name Smilebit?

My goal is to make games people will enjoy, if possible, as a family. I would like players to be very happy with our titles. I also want these people to enjoy playing online with other players they don't know. For all these reasons, I wanted to include the word 'smile'. However, smile is not serious enough on its own, so I decided to include a digital image by adding the word 'bit'.

"I really do not feel the problem is the DC hardware. That would be too naive. As the first next-gen console, it's not surprising that it has lower polygon performance"

What are you working on now?

Smilebit is mainly based on the former Sega PC, which represents about a third of the staff. We have six lines and even though there are 105 of us, it is still not enough. We have regrouped some very successful series with all Sega's club simulation titles (soccer, baseball, horse racing, etc). And we have developed the cutting-edge *Jet Set Radio*. We are continuing to develop these series using some of the lines.

When I joined Sega, I wanted to develop a few online projects, as Sega had decided to diversify into home banking, home trading, etc. Then I was in charge of Saturn's development tools and technical support. For all these reasons, when Smilebit was founded, Sega asked me if I could come up with an online title to support Sega's network strategy. As a result, we have a network game that will be compatible with the Dreamcast and Net@ [eCS]. It's called *Hundred Swords*. And we have a second project in progress, quite original and also network based.

Can you elaborate on Hundred Swords?

It is a 3D realtime simulation game, like *TA Kingdoms*. It has been designed from the beginning as a true network game. Dreamcast and arcade [Net@] versions will be a little different. On a console, users will play longer, so a Story mode is included with 30 scenarios. In the arcade, time will be limited (for example 30 minutes or one hour) and there will be three scenarios. The chat system will be quite different between the two versions, and *Hundred Swords* will benefit from higher texture quality using the large amount of memory available on Net@. There are four kingdoms with different ways of evolution. They fight each other.

What is your development strategy going to be?

As part of Sega Group, our aim is to boost Sega in the games industry. Sometimes Sega will ask us to take on particular projects, as was the case with *Hundred Swords*. But to be able to respond to any needs from Sega Group or from the market, you have to be able to work fast. So I will allocate some of my resources to research and develop new technologies. That might be a line which is not busy or a separate team. My approach is simple and may differ from others. Even if you have a great project, you cannot do it unless you have the right technology to support it.

I'm also developing a PC line since we have experience on the platform. Projects will be developed simultaneously for the Dreamcast and PC. Simulation games may be our main genre. But, of course, I want to develop new genres too.

On the business side, it is our first year of existence so our main objective will be to be profitable on March 31 next year. After a couple of years, maybe three, we will be able to evaluate our profitability and then invest in building our own game server at Smilebit. Based on this server, we would develop services and eCS features based on the game field. As our chairman and CEO, Isao Okawa, stressed recently, in five years we want to get involved in IPO services.

What does Sega need most right now?

I think we have to develop 'Sega-looking' games. I don't think we are making Sega games any more, and the users have already noticed. Of course, as a separate company it is vital to make Smilebit games, but we mustn't forget to include the Sega flavour in each of our titles. Users should see Smilebit as a company belonging to Sega Group.

As far as the Dreamcast is concerned, I really do not feel the problem is the hardware. That would be too simple, too naive. As the first next-generation console to be released, it is not surprising that it has lower polygon performance. The main issue is to explain to users why the Dreamcast has a modem. Also, we have to exploit several key features of the console, such as the memory, the graphic chipset and the CPU. There is still a lot to do. I really think the Dreamcast is a well-balanced machine. I know that there are projects which would be impossible to implement on the Dreamcast, but at Smilebit we are working hard to get the most out of the console's power.

What do you think about network gaming?

I remember during the 2D age, it was difficult to make games as the hardware limits were soon reached – but we managed to make a few great titles. Now it is much easier because of the great evolution in technology in recent years. With network play, the main difficulty is the infrastructure. It wasn't developed to support gaming and it is too expensive. Things are getting much better, though. Three years ago, for example, ISDN was still out of reach of most people and only core users were enjoying digital, high-speed Internet. Now it is common.

My vision of network play is a game that doesn't give the impression of being a network game. I mean, users won't have to wait for the system to establish a connection or spend time searching for a friend on the network. Everything has to be immediate, ready to use.

I said the time for network gaming has arrived, but we still need some time, since the infrastructure is not yet perfect and the consoles aren't ready. According to my vision, telling people now that network gaming is reality is a lie. Consoles don't have sufficient power to support true, realtime network play. That means you have to limit your project, find tricks to prevent the game from slowing down. In other words, you are searching for tricks to fool the user, to make him believe he is experiencing what everybody is calling network gaming. We need the technology to be good, and cheap enough to make it viable.

As a business, network gaming is very hard to measure. If you sell 50,000 copies of a game, you cannot predict how many you would have sold if it was a network title. We can only make online titles in such a way that people will accept pay-to-play. I hope that in the following years, the network business will represent around 30 per cent of our profits.

Are you planning arcade titles or outside collaborations?

We worked for a few years with the AM departments – we presented the idea for *Typing of the Dead* to AM1. For arcades, we are mainly working like this, looking at what we can adapt or exploit. We will work mostly on the consumer market, though. We have to help Sega grow, as it is part of our survival.

Smilebit

Best Sega game ever: *Sonic The Hedgehog*. Not because he worked on the game but because it was the first project he worked on in Sega. He supplied music and effects for the seminal title.



Achievements: *Sonic The Hedgehog* (1991, MD), *Ariel Crystal Densetsu* (1991, GG), *Advanced Taisen* (1991, MD), *3x3 Eyes* (1993, Mega CD), *Sonic The Hedgehog CD* (1993, Mega CD), *Heavenly Symphony* (1994, Mega CD), *NiGHTS* 1996, Sat), *Roommania #203* (2000, DC)

Staff: 40







1. *Roommania #203*
2. *NiGHTS*
3. *Heavenly Symphony*

> (formerly Sega Digital Media)



Wave Master **Yukifumi Makino**

Why have you chosen the name Wave Master?
Most of us come from the former Sega music studio – there is a big sound studio inside Sega HQ. We used to provide soundtracks for both CS and arcade development teams, so I thought it was important to keep a trace of our origin, of our very foundation. However, I didn't want to restrict our image to sound. We want to be more than simply a sound studio as we were before. We will make our own products and develop our own image and culture. So I decided not to include a word like 'sound' in the company name in order to give us a wider field of activity.

> "I think Sega is moving in a very closed environment. Teams are working together and nothing new is coming from outside while the entire industry is changing"

I used to play on the Famicom and PC Engine and didn't know much about Sega. I attended a corporate meeting at Sega for new graduates. I met every department and decided to join as a developer. The first project I worked on was *Sonic The Hedgehog*, and I have been able to use my sound abilities from the start. It has been a great experience – I never thought sound would be my profession, although I had a band at university. It is great to do what you like.

What is your development strategy going to be?
We used to specialise in sound, so producing games is quite new for me. We will continue to write soundtracks for other teams when they ask us. But I think that eventually each new company will have its own sound department, so their development will be unified. Others may seek outside collaboration, so our business may get smaller and smaller. In order to survive, we have to develop games – or at least services.

We will work with the entire Sega group and maybe other outside companies. We developed the Dreamcast sound tools and library. We will still provide sound support, which I guess will represent about 80 per cent of our activity in the beginning. The other 20 per cent will include developing original titles and other sub-activities, for example DJ album production or movie soundtracks, etc. Anyway, during this first year we will focus on what we know best – sound – but at the same time we will learn, find new opportunities and think about game projects.

Do you have any game projects yet?
Not really, but we will certainly help or work in collaboration with other members of Sega Group on their game developments. That will give us more knowledge about development. But I'm thinking of entering the first wave of entertainment development for Docomo's next revolution in mobile phones: W-CDmaone. We will use this cutting-edge technology to program innovative services. I think this will be big business next year.

I'm also starting *Roommania 2*. I want to include network ability in this sequel, but how that will take shape, I cannot tell you yet. I'm studying several ways. I would really like to develop the sound feature in DVD. This format is booming in Japan, but the sound hasn't been exploited properly. There is a lot to be done, and I have a lot of ideas.

What does network gaming mean to you?
For me it is simple: networks are a communication tool, no more and no less. Okay, they can be used to support online play so numerous people can compete with each other. But for me, it is the greatest tool for people to communicate. I would really like to develop various solutions as networks will be a great market, more for their communication potential than for gaming. People are investing a lot of money in mobile phones, primarily because they want to communicate with each other. In this respect, there is much to do and the outlook is promising.

What does Sega need most right now?
I think Sega is moving in a very closed environment. Teams are working together and nothing new is coming from outside while the whole industry is changing – as is the market. I think it will be a problem soon. *Roommania #203* was an indication of that for me; in many aspects, this game is an incarnation of Sega's problems.

What problems are you facing, given that you haven't developed many games before?
We have a very, very young staff with an average age of 20 years old. They are all sound artists, sound creators. When we decided to be a company we faced many aspects we had never touched or thought of before. The biggest problem is certainly the business part. We had to forget our artistic natures in order to be PR or business representatives to deal with our parent company and others.

What are your goals as a company?
If people said we had developed a great title or service, we would be very happy, of course, but more important to us is to have done our best. We want to be proud of our creations. We have a lot to learn, but even at our level we are seeking the very best quality and cutting edge or innovative products. If we can achieve complete satisfaction for the users and ourselves, I will be the happiest man in this industry.

We have very skilled staff in the company, as they have worked on major projects. We really know how to exploit hardware in order to deliver the maximum capacity. So I think we are able to adapt these skills to programming. That will be very helpful for our future game projects.

Best Sega game ever: *Sega Rally*. "Did you know that *Sega Rally* was initially an AM3 title? I remember Mizuguchi and Sasaki deciding to leave AM3 with the *Sega Rally* team. When they got their own AM, Mizuguchi decided again to leave Sasaki for some reason, to leave Sega HQ for Shibuya. Well, I don't know if it was my fault, but so many people left our department. Who would be next? Oh yes, Watari (*Virtual On*)? It is becoming a big problem? It is if you look at the credits for *FFIX* – a large number of the staff came from us."



Achievements (all coin-op): *Rail Chase* (1991), *Jurassic Park* (1992), *Star Wars* (1994), *Dragonball Z VRVS* (1994), *Sega Rally Championship* (1995), *Rail Chase 2* (1995), *Funky Head Boxers* (1995), *Virtual On* (1995), *Gunblade NY* (1995), *PakuPaku Animal* (1995), *Manx TT* (1996), *Decathlete* (1996), *Last Bronx* (1996), *The Lost World* (1997), *Top Skater* (1997), *Winter Heat* (1997), *Dirt Devils* (1998), *Virtual On Oratorio Tangram* (series from 1998), *Magical Truck Adventure* (1998), *LA Machineguns* (1998), *Crazy Taxi* (1998), *Touch de Uno* (1999), *Toy Fighter* (1999), *Derby Owners Club* (1999), *Jambo Safari* (1999), *Power Smash* (aka *Virtua Tennis*, 1999), *Touch de Uno 2* (1999), *Kase Channel* (1999). (List does not include console conversions.)

Staff: 128

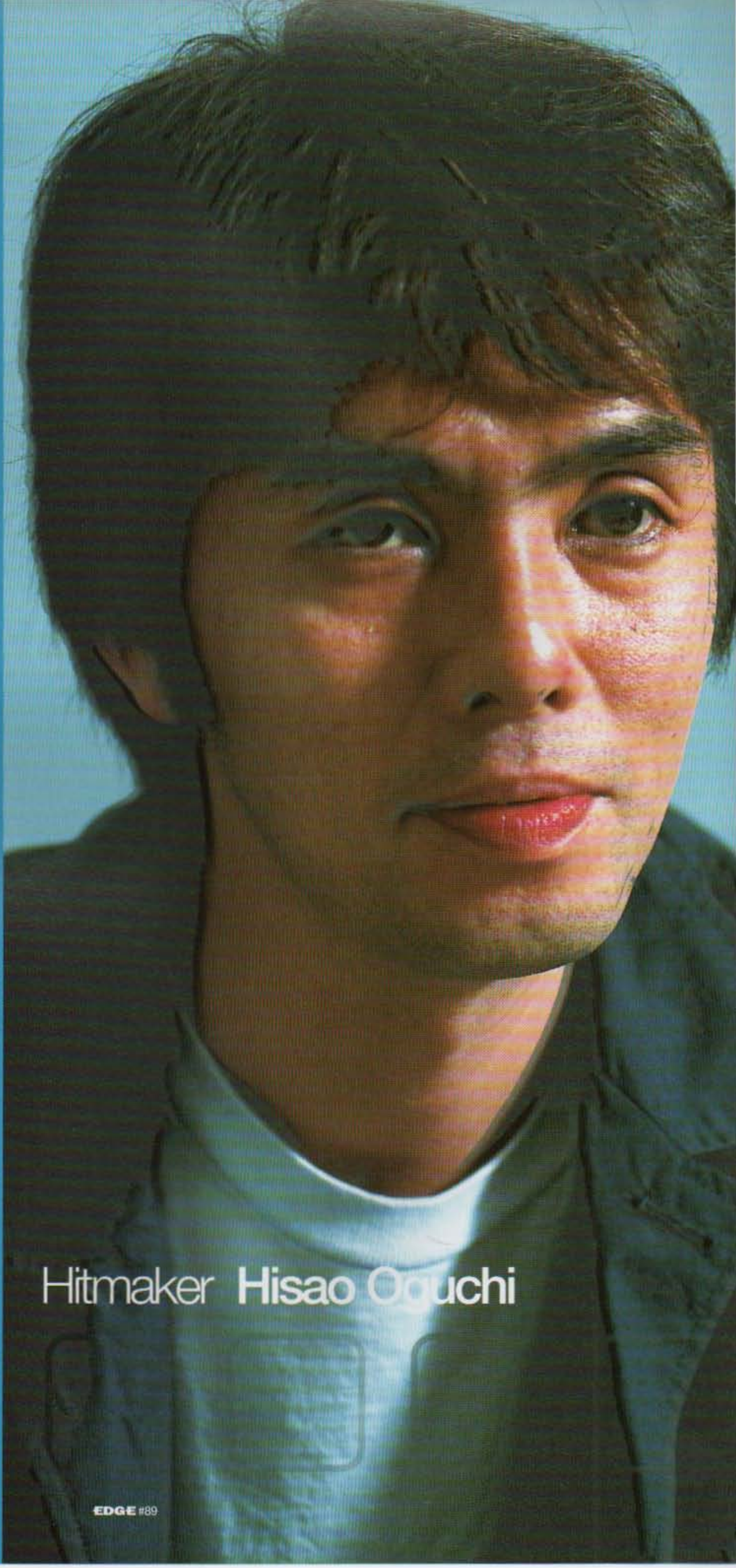






1. *The Lost World*
2. *Decathlete*
3. *Jambo Safari*

(formerly Soft R&D#3)



Hitmaker **Hisao Oguchi**

Why did you choose Hitmaker?

I thought it was the perfect translation of our image. But that isn't all – there are other reasons I haven't revealed to my staff. Look at the logo and you may notice something similar to the '@' symbol. I thought it would be good to include this idea, as it will become more and more important. And if that adds ¥1,000 to our stock value, why not?! [He's kidding.] When I proposed this name to my employees, there was much opposition. Younger people wanted to include words like 'digital' or 'universal'. My concept is to sell content, solid gameplay. I think this name suits these ideas.

What is your development strategy going to be?

In three words: network content provider. This direction represents 50 per cent of our priority. The only way to face PS2 is with network gaming, so I'm preparing a project called 'Project X'. We will have our own servers and it will be a massive network game in which up to 100,000 people can play. I think I can gather 80 per cent of these 100,000 players.

> **"The only way to face PS2 is with network gaming, so I'm preparing a project called 'Project X'. We will have our own servers and up to 100,000 people can take part"**

What about Dreamcast development?

Well, as I said, I want to prepare the alpha version of 'Project X', then a playable version in February, and launch the business for cherry blossom time.

I'm definitely a fan of *Ultima Online*. I played for a year and a half. I still have an account but haven't played for six months. I don't want to erase my character. It has been a great experience. I have watched how Origin managed to renew the game continuously to keep users in *UO*. I want this title to be our first truly original DC title. I will, however, take into account the level of the infrastructure in Japan and make a title easy to play.

I would also like to launch a new series based on the 'Crazy' label to follow *Crazy Taxi* – maybe *Crazy Shopper*, *Crazy Paperboy*, etc. And I want to develop *Virtua Tennis* into a series – maybe in the arcade. So I'm thinking of sequels. The overseas version of *Virtua Tennis* is not network compatible, but the Japanese version is. Since *Virtual On*, we have certain experience in this field. I think *Virtua Tennis* might become a great network title. The only problem is knowing how much we can push this title on the DC here. I hope that it will be able to gain a little ground on the PS2.

What does Sega need most right now?

I would say money and marketing staff. If you consider Dreamcast titles, I really think they are great. Don't you think so? There was this great PS2 wave but now it is over – so few people play on it. So how did SCEI manage to make the system sell so well in the first place? Surely it is an example of Sony's power in the marketing and communication fields. We had the feeling that we had to buy a PS2. For the Dreamcast, I have to admit that the marketing has been quite poor even if the Yukawa campaign was correct. So, if we cannot convince people to buy a Dreamcast even with a good quality line-up, the only way left is the network feature.

On the development side, technology is not enough. Previously, Sega sold games based on its advanced arcade technology. Nowadays it is no use. The Dreamcast has beautiful graphics, but so does the PS2, and so do all the next-generation machines. There is no advantage any more. We need new concepts.

What do you think about network gaming?

I think there are many titles – Sega's included – where you have to show courage: if you don't show a little bravery, you cannot finish the game. This idea is not suitable to network gaming for a wide audience. In Japan, the sort of people who will play network games is quite limited – students or salarymen. They will only play for a few minutes each day after school or work and just before going to bed. That means you have to minimise the time spent accessing the game and you have to allow users to enjoy short play. My idea is to let people play their way. If you want to enter a long action story then go for it. But if you just want to walk around and talk to other users, okay, no problem. Gaming on demand; network content provider – these are my visions of network gaming.

Many people are developing online titles, but I'm sure that users will play only two or three titles a year since such games require more time, or are infinite like *UO*. We are targeting young adults and older for network play. Plus, we are thinking about a fee of ¥800 to ¥1,000 a month. Not many people can pay such a fee every month. So our target market will certainly be limited to students and salarymen.

What is your development strategy going to be?

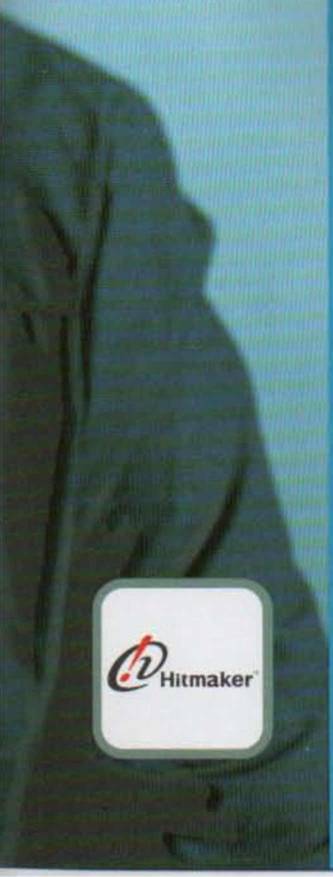
Have you noticed that we have hardly any sequels in our titles? Sequels would be a good move from a business perspective, as nearly 70 per cent of the previous users would play the sequel. But we have a strong feeling within Hit Maker: we really want to make something new and innovative each time. That's why so few sequels exist.

Everybody is making realistic-looking games, for instance. At Hit Maker we had a different point of view, and decided to make something not realistic at all – *Crazy Taxi*. In fact, that is far more difficult than reproducing an existing car. That's an illustration of our philosophy. It is also a proof of high levels of technology and skill. If you faithfully copy a real element, you only have to reproduce it using physics and an exact 3D model. In the case of something as original as *Crazy Taxi* or even *Jet Set Radio*, you have to start from scratch and add originality to a real-looking environment. I think that is far more challenging.

Plus, we are very careful with our titles to set the level of fun. You know that with a little change, a game can be a disaster or a big hit. For example, in *Crazy Taxi* we added the drift a couple of weeks before its announcement as we found the game too sober and not enough fun. It is quite a difficult thing to set. It is much easier with a realistic title, as you stick to physical models.

What do you think about today's games market?

More types of entertainment are emerging in our everyday life. For instance, in my office I have three pinball-type games. Yu Suzuki has wine and audiovisual stuff. I prefer analogue games that are simple and funny. I don't believe it is more fun to play a console or arcade game. When you consider arcades, the environment is quite sinister. We should improve the image of videogames.



Edge policy

Every issue, **Edge** evaluates the best, most interesting, hyped, innovative or promising games on a scale of ten, where five naturally represents the middle value. **Edge**'s rating system is fair, progressive and balanced. An average game deserves an average mark – not, as many believe, seven out of ten. Broadly speaking, score correspond to the following sentiments: one: disastrous, two: appaling, three: severely flawed, four: disappointing, five: average, six: competent, seven: distinguished, eight: excellent, nine: astounding, ten revolutionary.

Videogames on the Edge

Titles slowing productivity this month

Seaman

(DC) Sega

Co-opting the whole **Edge** office into a 'My Nine Dads' sitcom scenario, raising the world-weary Seaman is an amusing and rewarding experience.



Puzzle Bobble Mini

(SNK) Neo Geo

It may not be on sale any more, but the Neo Geo Pocket is worth digging out of a bargain bin for this game alone. Survivor mode is especially addictive.



F355 Challenge

(DC) Sega

The stuff of dreams, literally. So exacting is Yu Suzuki's driving sim that it will keep you awake at nights wondering how to beat that final stage.



GoldenEye

(N64) Rare

Playing *Perfect Dark* prompted **Edge** to dust off its counterpart for another session or two. A divine piece of software that never ages.



Power without control

The key role of the controller in videogames

Pirelli ran an ad campaign featuring Carl Lewis – once the world's fastest man – wearing stilettos. The 'power is nothing without control' tagline naturally applied to more than tyres, and videogames are no exception.

Consider the number of times you've experienced a game whose potential was stifled by an inadequate control system or obtrusive joypad design. Too often, developers appear unwilling to devote enough time to the quest for the most appropriate control system. And yet, get it wrong and you may as well have not bothered with the months spent working out routines for cramming all those polygons on to the screen. Does it matter that all that data is refreshed every 1/60th of a second if you can't control your polygonal alter ego? You could have the world's most impressive visuals, but as soon as the game becomes unplayable you're left with nothing more than an indication of your plastic box's triangle-pushing potential, not a game.

Nintendo seems to understand this better than most. Having always led the field when it comes to joypad design, it's inevitably aped by competitors. Sure, other hardware engineers put an awful lot of effort into designing controllers, but you can't help but feel that they concentrate more on making the controller as ergonomic as possible, whereas Nintendo always gives the impression that a lot of thought about gameplay implications has also gone into what must be a headache-inducing process. As a result, its developers can work at making the joypad as 'invisible' as possible for the likes of *Mario 64* (below), *Wave Race 64* or *1080°*.

Would you ever find the buttons on a Nintendo pad sitting too high for the classic button-bashing approach required by *Track & Field*-type titles? Not likely. But can you say the same of the Dreamcast controller when attempting to play this month's *Virtua Athlete 2K* (p99)? Sadly not.

Of course, some developers are keenly aware of how joypad design may restrict the gameplay of their product. Witness how Argonaut thoughtfully included PlayStation mouse support for *Alien Resurrection* when it realised the game suffered from Dual Shock-only control. Unfortunately, many other developers would have been content to leave gamers to struggle with the latter option alone.

Maybe Mario should embark on his own ad campaign, encouraging developers to better harness the power at their disposal. Let's hope the stilettos fit.











F355 Challenge

Format: **Dreamcast** Publisher: **Sega** Developer: **In-house** Price: **¥5,800 (£36)** Release: **Out now (Japan) October (UK)**







Ferrari's Fiorano test track can't be raced on, though Time Attack and Practice is allowed (top). The pit sequence is superb, and useful during endurance meetings

Most people will initially find *F355 Challenge* dull and insanely difficult. But after 30 minutes it becomes clear that it is no narcolepsy cure, nor is it impossible to play. It's true, though, that getting to grips with 380bhp of pseudo-authentically simulated Italian engineering on 11 (six from the arcade and five a DC-only bonus) of the world's most technical circuits takes a little longer than it it does in most racing games.

While a collection of electronic assists are immediately available to beginners, switching off the intelligent braking system from the start is recommended – it has a tendency to decelerate far too early, making it impossible to outbrake your competitors and hence achieve a decent finishing position. While far less intrusive, the others should be turned off sooner rather than later – this may make life harder initially, but it does precipitate the learning process. Stability control is arguably the easiest to live without, followed by traction control (though this remains particularly tempting for starts), and eventually ABS. As ever, the quicker you adopt a manual transmission system, the better. You should then find that keeping up with the pack and even winning races becomes a genuine possibility.

And this is what sets *F355* apart. It is unquestionably one of the most comprehensively hardcore racing games to date. There's no eagerness on its part to reward your initial feeble efforts, and, the few limited driving aids aside, it makes no concessions for your inexperience. With eight competitors matching each other in terms of performance, this is real racers' territory: if you want to win in *F355*, you're going to have to work at it, bringing all your videogame experience into play.

It's one of the most comprehensively hardcore racing games to date. There's no eagerness on its part to reward your initial feeble efforts



Possibly the best-looking racer to date, *F355* offers inspired renditions of Monza, Motegi, Sugo, Suzuka (short/international layouts), Long Beach, Atlanta, Laguna Seca, Nürburgring, Kuala Lumpur and Fiorano

As such, *F355* draws you in like few other games. You may well scream in despair as one more trip into a gravel trap ends yet another chance of victory. Yet, without hesitation, you subsequently load up another race, promising yourself this time you'll brake that little bit harder and a few centimetres later, hug the apex a couple of millimetres tighter, and power out more decisively and a fraction of a second sooner. Maybe then you'll beat that sixth-placed man to the first corner. Away from your Dreamcast you'll contemplate new lines, later braking points, different strategies of dealing with the opposition, relishing the moment you're next behind the wheel of your digital F355 again.

Despite this, the game could be better balanced. Being forced to start from the back of the grid is particularly harsh when everyone is racing the same car, and can become demoralising – you always have to work that little harder than everyone else. That's fine for the Arcade mode, but why wasn't a qualifying or random grid positioning system included for the Championship game? Also, a championship including the extra tracks would have been an excellent addition, and it surely wouldn't have been much of a headache to implement.

But the main concern isn't *F355*'s structure. It isn't the lack of damage, either (though it would have benefited the game tremendously), or the way cars bounce unrealistically and disappointingly off each other whenever mid-race collisions occur (or the fact CPU drivers invariably seem to come out better from such automotive arguments). Or even that, while decent, the AI never fools you into regarding the opposition as human – it's certainly far less convincing a case than *TOCA World Touring Cars*, for instance.

No, the problem is wild understeer. By losing the force-feedback of the arcade











Replays are the only time you get to see more than the top of your F355's bonnet and steering wheel, as the in-car view is the only one offered. Widescreen TV owners will welcome the anamorphic display option



When not racing the Arcade option, you're given the choice to tinker with your vehicle's set-up. As ever, it's a subtle process and it can help reduce the game's over-zealous understeer characteristics

version, it becomes extremely difficult to judge the adhesion level of your race-prepared machine. Furthermore, having experienced a Challenge-spec F355 firsthand, this writer feels the developer has underplayed the grip available – in the real world these vehicles can be thrown into corners at absurd speeds and, provided you adhere to conventional racing driving techniques, the car's slicks refuse to let go. Naturally, this wouldn't be a problem if it did not interfere with *F355*'s gameplay, but this isn't the case. Being forced to tiptoe around the circuits isn't particularly clever – it's a simple case of practice – but it can feel particularly chastening. Faster corner entry speeds and brusque steering input that doesn't necessarily result in control loss could have made things more exciting and ultimately even more rewarding.

Having said that, this is a splendid effort and easily the best Dreamcast driving game to date. True, it could have attempted to embody more of the passion and identity associated with Ferrari, as at times it can be a sterile experience. And it's a shame more wasn't made of the home version; even a simple Career mode would have ensured further substance. Regardless, those prepared to take on the challenge will find it one of the most enjoyable yet.

Edge rating: Seven out of ten

F355 Challenge Twin (Verzione Domestica)

Like most racing games nowadays, *F355 Challenge* offers a twoplayer split-screen mode for a step-up from the CPU opposition (though, naturally, this varies according to individuals). There's a slight loss of graphical detail once on the track, but other than that it's business as usual. Far more interesting, however, is the game's cable link option, which allows two Dreamcasts to be connected. Aware of *TOCA 2*'s outstanding link-up facility, this is likely to be an essential investment.

Spawn

Format: **Dreamcast** Publisher: **Capcom** Developer: **In-house** Price: **¥5,800 (£36)** Release: **Out now (Japan) TBC (UK)**







In *Spawn*, having your body cleaved in two is only a temporary setback. Reducing the enemy energy bar to nothing within the time limit is your aim

Todd McFarlane's characters are huge, intricate, and carry a crunching impact; Spawn is no exception. The game, overseen by McFarlane himself, possesses a screen-shaking power and cartoon style appropriate to the series, and crosses it with the clarity of an arcade machine. Everything about *Spawn* shouts coin-op, from the slick visuals down to the time-limited, vacuous, thirdperson beat 'em up action. Even its insistence that you play in the split-screen multiplayer mode (the number of players defaults to the number of controllers plugged into the Dreamcast) smacks of arcade combat camaraderie.

Once you've forced the software to let you play alone, it's obvious why it tries to steer you elsewhere: the oneplayer game is almost an apology for the mayhem of the multiplayer. Choose your character, take on seven bosses over the course of seven short levels, destroy them, and another fighter is yours. Then repeat with the character you've just won, and so on. The levels can also be played co-operatively in split-screen mode, which brings a little life to the experience. The number of selectable characters means completion takes a while, but it's not necessarily time you'll enjoy.

One button for jump and another for attack means the combat is neither strategic nor complicated, despite a massive range of weaponry and a limited set of special moves. The action is, however, breathtakingly fast. Each round takes place over two-and-a-half minutes, in which the level's boss must be killed, and death for your character means



Close combat might be powerful, but it makes you more vulnerable to enemy attacks, meaning defensive power-ups are crucial. The yellow arrow, shown at the top of the screen, points the way to the level boss

Everything about *Spawn* shouts coin-op, from the slick visuals right down to the time-limited, vacuous, thirdperson beat 'em up action





One game mode lets you select four fighters and play them off against each other in an arena of your choice. Points are awarded for kills, and the winner is the player with the highest score after three minutes

a time penalty is subtracted from the clock. Destruction predominates, and though the violence is a world away from the stylised gore of, say, *Soldier of Fortune*, it has a speed and intensity that's far more powerful. Graphically, it's immensely satisfying, but spoilt by the utterly inane camera.

Dizzying and unpredictable, the constantly shifting thirdperson view means that you often can't locate attackers. Feeling you're in control of your character and aware of where your enemies are is crucial in something this fast-paced, but when instant death comes from nowhere time after time, it feels unfair. The developer has attempted a fix in that one button briefly shifts the view to a firstperson perspective so you can align the camera, yet it fails, as the speed of the game is such that by the time you've adjusted to face the enemy he'll be upon you. You're left with the ridiculous situation of











Barrels and crates litter *Spawn*'s levels. Some can be picked up and thrown at your enemies



Despite much of the combat taking inside moderately sized arenas, occasionally the levels are based around smaller passageways, staircases and rooms. In theory this should add more variation to *Spawn*'s limited fighting style, but, unfortunately, the camera is even more unpredictable inside confined spaces

shooting blindly at where an opponent might be, then guessing when he'll attack and timing your evasive action accordingly. Co-operative multiplayer suffers the same problem, but in deathmatch the frustration is tempered by knowing your opponent will be suffering in a similar fashion.

Full of kinetic carnage and a ferocious power, *Spawn* is the comic made digital, but even fans will see it as absolutely transparent. Although the two-dimensional gameplay model can be accepted as an attempt at addictive simplicity, when your failure is persistently caused by poor camera angles, there's little incentive to try again. This is acceptable in an arcade, as you can walk away. Justifying the purchase of a game that's only really playable in the still-flawed multiplayer mode isn't as easy.

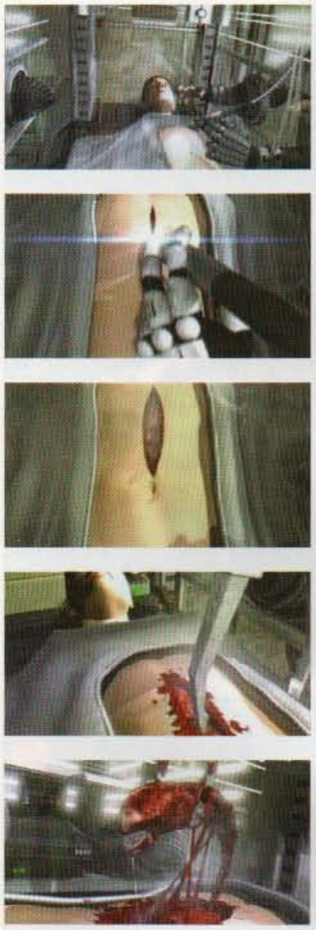
Edge rating: Four out of ten

Slip into the Bikini of Steel

At the end of each game, a screen illustrates the weapons that you managed to collect during the levels amongst silhouettes of the ones you missed. These take a full range of modern day artillery as well as traditional swords and sorcery fantasy weapons. The game also features some slightly odder implements of destruction – the evil clown, in particular, uses a combination of chainsaw and giant boxing glove to smite his enemies. Other favourites include the M60, the Flaming Sword, and the elusive Bikini of Steel.

Alien Resurrection

Format: **PlayStation** Publisher: **Fox Interactive** Developer: **Argonaut** Price: **£35** Release: **September**



The FMV intro fits the mood of the game perfectly, intercutting scenes of the spaceship with foreshadowing shots of the Aliens and a gruesome operation

Conceived in '97 and born September '00. Prolonged gestation signals problems in most forms of media, and gaming is no exception. *Resurrection* was expected sometime last year, but was delayed, then trashed, then reconstructed from its original thirdperson format into a firstperson 'horror adventure'. Hardly an auspicious start for any game, particularly one that attempts to follow the splendour of the franchise's previous release (*Aliens vs Predator* on the PC), on a machine now showing its age.

Actually, the PlayStation benefits from the leaden green claustrophobia that indelibly marks the films, the terrifying gloom hiding the inevitable jagged polygons and crude bitmaps. When they do come to light, they're forgivable. When pixellated lines are visible in the chewed-up guts of the crew members, it's not their jagged form that causes revulsion. When a rare bright light illuminates a smear of bitmapped blood and your imagination tells you something's been dragged screaming towards an uneven hole in the wall, it's not the obvious polygons that scare.

Resurrection's film-based plot means you begin as Ripley, with both humans and aliens trying to take you down. The humans are tough, the aliens tougher. If they get to you – and although they're slower than their film or PC counterparts, they're still fast – you're dead. They run up walls, across ceilings, and scuttle towards you with startling pace. Initially, it all seems a bit unfair, especially with a joypad. No matter how well-designed the interface, the Dual Shock's two analogue sticks can never substitute for the instinctive

Even during a casual half-hour game in the daytime this has the capacity to scare – play it in the dark and it's absolutely terrifying

FPS control of a mouse. Despite the numerous control configurations offered here, the inaccuracy of the joypad irritates, especially when you find yourself in a sudden, surprise confrontation, where *Resurrection* excels. Thankfully, mouse support is included and changes the game from frustrating to, literally, scarily good.

What sets *Resurrection* apart from anything that's gone before it is the fear



Vents may not be a particularly original aspect of *Resurrection*, but given that the films are so grounded in fear and claustrophobia, they're particularly relevant. Crawling is realistically and scarily cumbersome

it engenders. Offering genuine, disturbing anxiety, perhaps more than in anything ever previously seen in gaming – only the *Resident Evil* series and *System Shock 2* come readily to mind, and even their terror isn't as sustained or intense as exhibited here. Even during a casual half-hour game in the daytime it has the capacity to scare – play it in the dark and it's absolutely terrifying. In fact, play it with the sound turned down and the lights on and you're missing the point. Flickering shadows, and no health, no bullets, no torchlight, no save points. And worst of all, the distant screaming and scratching on metal, the tip-tapping that gets closer, and the lack of enemies anywhere. Until... screech, panic and scream.

This is *Doom*, not *Deus Ex*; forget about stealth and sneaking up on your alien foes – their presence is triggered by your actions and it's all rigged to happen when you're at your most vulnerable. Not just at the lows in your character's health, but at the peaks of your emotional fragility. It's genius, exhibiting little originality, but is near-perfect in its scripting, execution and timing – a little ironic given its delayed release. There's a chance the game will be buried in the avalanche of PS2 hype and mediocrity because of its interminable delay, but it doesn't deserve to be. It's better than that, and either as testament to what can still be achieved with the PlayStation or as its final hurrah, it merits praise and celebration.

Edge rating: Eight out of ten











Bodies litter the ship, but most of the killing has nothing to do with you. With every dismembered corpse comes a reminder that somewhere, possibly very close indeed, the killer waits to do the same thing to you



Bullet-based weaponry exists, but using other weapons is a more creative way of alien slaying. Both the electricity gun and flamethrower are graphically well-executed, and their effects on the aliens can be lethal

Can you stomach it?

The presence of face-huggers adds more panic to *Resurrection*'s already fearful mix. Firstly, they're small and difficult to hit without using a weapon with a broad impact range, like the flamethrower. Secondly, when they get you – as they almost inevitably will – you'll wake from a brief period of unconsciousness to find an alien ready to burst from your stomach. Find an AutoDoc before the on-screen time limit runs out and you survive. Fail, and a sickening ripping sound indicates the alien's birth – and your Game Over.

Mario Tennis

Format: **N64** Publisher: **Nintendo** Developer: **In-house** Price: **¥6,400 (£40)** Release: **Out now (Japan), October 13 (UK)**

The idea of a sports simulation is a fallacy. However slick the onscreen action, the nimble joypad taps of a *FIFA* expert are a world away from the skill of even the dourest professional footballer. While the strategies may be similar, albeit at the most tactical level, there must come a point where imitation is discarded in favour of entertainment. *Sensible Soccer* succeeded in the 16bit era for precisely

***Mario Tennis* scoffs at** the ultra-realism of *Virtua Tennis* – players **become surrounded by rainbows, bubbles** or crackling electricity









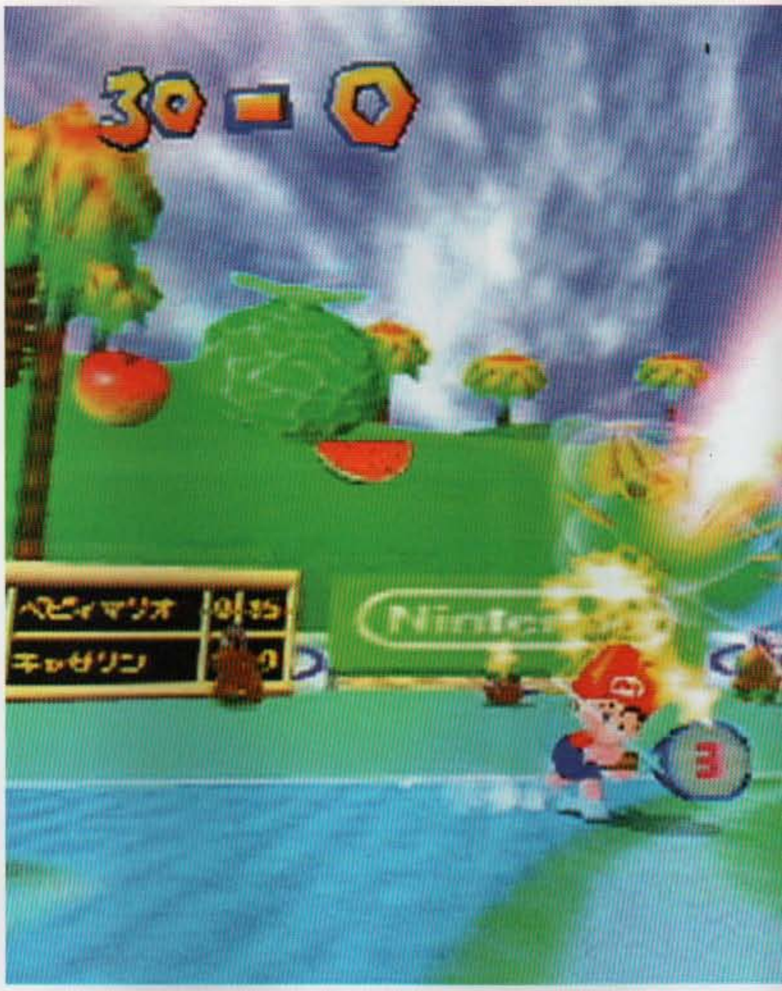
Every part of the game exhibits typical Mario style and character, from the selection screens right through to the colourful end-game celebrations

these reasons, distilling the beautiful game into two-minute matches of hyperactive fun that were more like a game of pinball than football. *Mario Tennis* takes a similar approach, scoffing at the ultra-realism of *Virtua Tennis* and sucking Wimbledon into candy-coloured Mario Land.

In *Mario Tennis* the ball is only slightly smaller than the characters' rounded polygon faces. In *Mario Tennis*, a good stroke is surrounded by a glowing aura. In *Mario Tennis*, players can charge themselves up for powerful shots and become surrounded by rainbows, bubbles, or purple crackling electricity. The only nod to the game proper is court layout and the lines that mark it – but these are overseen by Bob-Omb judges who explode when the ball drifts out.

Within the confines of this quirkiness lies a beautifully simple control system based around the analogue stick and just two buttons: Strike (A) and Slice (B). Double tapping the buttons gives the ball a blue or orange glow, making accurate returns difficult. Pressing a button before the ball comes to you means the character will ready his racket, unable to move, but capable of striking the ball harder than before. Finally, pressing first Strike then Slice will produce lob, while Slice then Strike hits a drop shot.

The game is structured like most Mario titles, with a main objective surrounded by smaller, non-important goals. The key task is to attain victory with the 16 characters in the tournaments *Mario Tennis* offers. Just as in *Mario Kart*, these are three cups: the first is simple, the second slightly less so, and the third stops just short of frustration. Victory in a cup either provides access to



Holding a button down before the ball arrives means a more powerful shot, indicated in this case by stars sparkling on the character's racket. Adding slice to this can make returning insanely difficult

the next one, or unlocks bonus characters or courts. Two, three and fourplayer matches can also be arranged, and this is where the bulk of the game's appeal lies. Apart from the obvious plus of playing with friends, the reason for this is that while the highest-level computer players are difficult to defeat, their simple AI produces a repetition that the multiplayer lacks.

As well as the Tournament mode and the configurable exhibition matches, *Mario Tennis* offers a series of mini-games. In the simplest, players practise passing an opponent by returning balls randomly spat out by giant Piranha Plants. The ring game places giant *Sonic*-style golden rings all over the court; each rally accumulates points according to how many of the randomly placed hoops the ball passes through, and the points are collected by the player who wins the rally. The final mode of play takes place on a swinging stone court, nominally the home of Koopa (Bowser in the UK), where characters meet in a kind of tennis deathmatch. *Mario Kart* players will recognise the power-ups, with lightning strikes, banana skins, and red and green shells being among the various collectibles to be unleashed on your opponent.

Mario Tennis isn't jealous of the power and realism of Sega's *Virtua* model. It thrives on its characters' own hyperactivity – they get giddy with excitement at













Baby Mario, first seen in *Yoshi's Island* on the Super Nintendo, is one of the 16 characters in *Mario Tennis*



Pressing both buttons simultaneously results in a powerful stroke, illustrated by the purple haze. When a point is won, quickfire replays appear – one button skips these, and the other changes the camera angle

Victory can mean accessing special courts, such as the Yoshi and Baby Mario one above. The tilting deathmatch tennis court means judging angles and movement can be tricky, especially when avoiding shells and banana skins

racking up achievements on the numerous statistics screens. While the singleplayer mode can become repetitive and is best enjoyed in small doses, multiplayer playtime takes on a distinctly 'fifth set deadlock' feel before you know it. *Mario Tennis* is exactly what you'd expect from Nintendo: exuberant, addictive and almost poisonously sweet.

Edge rating: Eight out of ten

Characterisation

Predictably for a Nintendo *Mario* title, ingame characterisation is delightful. Each of the 16 players performs his or her own quick celebration/sulk routine at the end of each point, as well as slightly longer ones to end matches and tournaments. In twoplayer mode, this ups the emotional stakes considerably – Kinopio (Toad) in particular has a victorious squeal and bounce that almost caps his *Mario Kart* "I'm the best!" for sheer gloating potential.

Sydney 2000

Format: Dreamcast/PC (reviewed), PlayStation Publisher: Eidos Developer: Attention To Detail Price: £40 Release: Out now









The long jump is a classic button-bashing event: gain speed as you tap, time your jump so you hit the board dead on, and hold a button down to get the right angle









Sydney 2000's realism cannot be understated. Replay angles often resemble those seen during televised athletics events, and the athlete models are fantastic, splendidly attired in their country's Olympic kit







Skeet shooting is fun, requires speed and accuracy, and is an aspect of *Sydney* where the pressure can really start to tell in multiplayer

Taking the plunge

Diving is one of the few events unlikely to result in a sprained wrist. The player chooses a dive from a list, rated according to difficulty, and then attempts to stop a power bar at maximum to provide height off the board. As the diver plummets towards the pool, she passes through a series of blue, green and red coloured hoops on the way to the water – the player must press the same sequence of buttons on the joypad. Dives are judged on their execution and the score is increased by a difficulty multiplier.

Did Ocean, when publishing *Daley Thompson's Decathlon*, see it as the future of electronic entertainment? Maybe not. Regardless, the genre it spawned remains caught in the same key-bashing dynamic that destroyed so many computer keyboards 16 years ago. And *Sydney 2000*, the officially licensed game of this year's Olympics, is as faithful an exponent of that ethic as any of *Decathlon*'s distant children.

There are 12 events, most demanding a predictable combination of intense button-pressing and exquisite timing. Some break the mould: in kayaking, for example, a clumsy control system means you struggle to steer your canoe through approaching gates. Skeet shooting is perhaps the most enjoyable, being a non-lightgun *Duck Hunt* for the year 2000, though it suffers from a lower resolution on the Dreamcast version than the PC.

A oneplayer Olympic mode sits in the middle of the game, allowing you to take athletes through *Bishi Bashi*-style training games to qualify for – and ultimately win gold at – the Olympics. Together with making attempts on world records in the oneplayer Arcade mode, this ensures the solo gamer will find some enjoyment in the title.

But the solitary experience pales next to the clustered misery/ecstasy dynamic of the multiplayer mode, where the presence of others watching, waiting and competing is everything. The character animation that bookends the action is no longer frustrating – as in previous incarnations of the game – but provides vital moments of calm amid the tumult of competition. Each event's simplicity almost adds to the pressure as you struggle to perform even the most simple of tasks to a competitive standard. The atmosphere is consuming; the tension, arguments, glory and gloating all-powerful – you almost forget this is little more than an 8bit game in polygon guise.

So, how many weights or heights do you pass on before you brave an attempt at the weightlifting or high jump? Will the catcalls and jeers during your run-up throw out your rhythm? Is unorthodox joypad technique bad sportsmanship? Is rubbing your sleeve across the buttons the digital form of steroid abuse? All interesting questions, but not immediately pertinent. The one that's crucial to ask before buying *Sydney 2000* is this: can you forget about the almost inane simplicity when faced with a game that encourages multiplayer rivalry at its finest?

Edge rating: Seven out of ten

Virtua Athlete 2K

Format: **Dreamcast** Publisher: **Sega** Developer: **In-house (Hitmaker)** Price: **£40** Release: **Out now**

Virtua Athlete 2K rekindles fond memories of Saturn *Decathlete* in 1996. The game's cartoon look and balanced playability certainly gave the PlayStation's *International Track & Field* a button-bashing run for its money. Over time, Konami's event selection has offered slightly a more immediate, improved multiplayer ambience than Sega's, but it has always been a close-run thing.

Yet, with the overcomplication of *IT&F2*, the opportunity for Sega to capitalise on its closest competitor's stumble has emerged. Ironically, though, Sega has gone the other way, over-simplifying elements that were already at their most basic. This results in some events losing a little appeal, with the shot put, for example, degenerating into an exercise in brute luck. Conversely, where an embellishment to the traditional gameplay has been made – such as the stamina bar during the 100m sprint – the balance of the gameplay has been carefully conserved.

Far more damaging is the quantity of events. Just seven categories are available (100m sprint, 110m hurdles, javelin, 1,500m, shot put, long jump, high jump), resulting in some indecently brief competitions, as the chances are you're just getting warmed up as the end sequence kicks in. And don't expect to unlock extra events – you can't.

However, *Virtua Athlete 2K* isn't to blame for everything. The Dreamcast pad isn't suited to button-bashing, as its buttons sit too high, and unless you reconfigure you'll find yourself holding it at the oddest angles, rendering the D-pad/analogue stick useless, which is fine providing the event doesn't require their use. The resulting gameplay experience simply isn't as smooth as that offered by the competition.

On a more positive note, the presentation throughout is mighty impressive. Pre-event preparation undertaken by the skilfully animated athletes is depicted in a thoroughly convincing manner, and the various camera angles do a commendable job of further dramatising the events. Good, too, is the CPU competition which, on the highest difficulty setting (World Championship), provides a real test – welcome news for any oneplayer punters out there.

While on paper *Virtua Athlete 2K* presents itself as a potential worthy successor to *Decathlete*, in practice, fewer events, a penchant for oversimplification and rougher controls take their toll.

Edge rating: Five out of ten







Possibly the hardest event to excel at, timing the high jump (above) can prove particularly tricky for anyone used to *International Track & Field*







Fourplayer 110m hurdling (above) can degenerate into hysterics for contestants as one player inevitably takes the direct approach and attempts to power their way through, as opposed to over, the obstacles



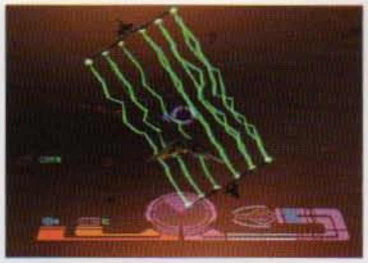
Creating the ultimate competitor

An interesting touch not previously seen in this type of title is the ability to customise your character. After you've selected skin tone, renamed and given your athlete one of the several available nationalities, you can clothe him (sorry, no girls), and spend stress-inducing moments attempting to co-ordinate wristbands with sunglasses, socks and trainers. Furthermore, you can select three disciplines of specialisation from a huge range (some only become available by completing the game), though there is apparently little correlation between those selected and your man's ability on track. Besides, you have to wonder how a penchant for sepak takraw, billiards and reggae affects your athlete.

Star Trek: Invasion!

Format: **PlayStation** Publisher: **Activision** Developer: **Warthog** Price: **£30** Release: **Out now**













***Invasion!* is based around smaller craft than usually seen in the series. It's only when you get close to some of the more widely known 'Trek' ships that you get a true idea of scale**

What's infinity like? It's tiring. There's a boulder, and you push it up the hill, and there it is at the bottom of the hill again. And so on, and no one tells you when it's going to stop, but somewhere around the corner you hope that it just might.

Star Trek: Invasion!, as previewed in last month's **Edge**, is a polygonal shoot 'em up that can't fail to hit the requirements of its target audience. It takes the 'Next Generation' series, scoops out all the pacifism, and places Klingon Worf in charge of the operations of a fleet of fighter ships. Known as the Valkyrie squadron, they're sent to investigate a Borg ship thought to be heading towards Earth. The player assumes the role of one of these pilots, devoid of background information, character or motivation. This is a shame, because plot-wise *Invasion!* is excellent – at least, those who appreciate the pseudo-philosophical dispassionate sci-fi that proliferates in Gene Roddenberry's universe will love this game.

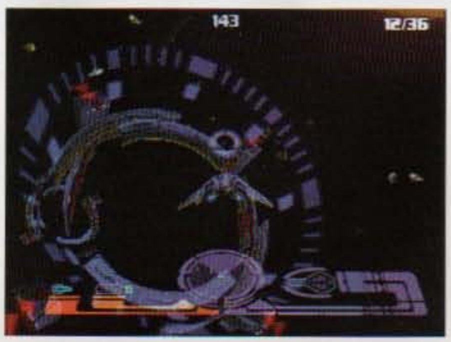
Missions interlinked by plot-pushing FMV throw you into the space-based combat. The simple arcade model the game follows means that control is instinctive, weaponry varied, and the destruction beautifully orchestrated. Your ship darts, turns, strafes, accelerates to warp and then stops on a sixpence. This is hardly realistic behaviour, but certainly more exciting than the sluggish control that crushes the life from some space simulations. Missions have varied nominal aims – retrieve, rescue, protect – but all ultimately depend on your destruction of the weak enemy fighters. And though fighting sometimes occurs close to planets or around massive capital ships, the scenery rarely matters. The minimalism that impresses at the beginning of the game starts to feel less artistic and increasingly shallow.

The problem with *Invasion!* is that nothing ever really changes. Sometimes exhilarating, the combat eventually becomes like the boulder and the hill – neverending and draining. The instinctively brilliant weaving battles start to tire under non-stop waves of identikit enemies. Patterns emerge. The warp, strafe, lock, fire routine remains, and there's no indication of how many times you must go through the motions before you move on a level or reach one of the boss starships. What once startled and sparkled becomes laborious – just one more kill, just one more wave, and so on and so on, to infinity.

Edge rating: Six out of ten

Telling tales

Next to so many poorly conceived and atrociously written stories in other sci-fi games, the tale told here stands out, benefiting from Paramount's extensive input and the strict confines it placed on the developer. Graphics, too, are consistent with the Federation's shiny curves, and will be hugely satisfying to Trekkers. Even the new fighters created from scratch by Warthog – and there are lots of them, this being a game based on much smaller ships than those generally seen in the series – have the look and feel of official 'Trek' craft.



The *Elite*-style radar, displayed along the bottom of the screen, makes locating enemies quick and easy. When they're onscreen, tapping triangle makes them your target. Holding the button down will lock you on to their flight path

Koudelka

Format: **PlayStation** Publisher: **Infogrames** Developer: **Sacnoth** Price: **£35** Release: **September 22**

Once you learn that developer Sacnoth is staffed by former Square employees, you don't get any points for guessing that *Koudelka* harbours some RPG elements. What would be difficult to predict is quite how far this fusion of adventure and battle RPG falls short of the dizzying sophistication of *Final Fantasy VIII* and *Parasite Eve 2*.

The intro and cut-scenes show off hi-res models of party leader Koudelka and her accomplices Edward and James, but this is perhaps the sole area of the game that has received sufficient polish.

Moving polygon characters over rendered backgrounds has worked for much of the PlayStation's back catalogue, and here, in Exploration mode, Sacnoth comes up with solid, if hardly slick, solutions; there are no loading doors, but there are mid-room pauses before the next scene appears, and a view-oriented rather than a character-rotating control method has been used. However, it's disconcerting to see that as your party grows from one to three only Koudelka wanders about the corridors and rooms. Of more concern is the fact that enemies never block your path, or ambush you by dropping from the ceiling. Indeed, enemies don't appear in this section at all, as every time you meet one the monastery vanishes and the real villain of the piece – an RPG battle-style patio grid – appears.

An initial disappointment is that the transition from exploration to combat is so obvious. There's little attempt beyond a change of floor texture to link the fighting area to the location you've just come from. When battle is joined your options are limited. You can't move beyond the last enemy on the grid. There's no different terrain to use to your advantage. Characters can't combine abilities to boost an attack. Magic and projectile moves make blocking an enemy's line of fire impossible. There are spells to learn and cast, but as these amount to little more than dressed-up rocket launchers. The weapons tend to break without warning, but many fights pose so little challenge you can win them with your bare hands.

Koudelka is a game divided, and its story, exploration and roleplaying elements never properly mix. Ambition is a fine thing, but in this case you can't help wondering if, rather than trying to be all things to all people, Sacnoth wouldn't have been better off aiming for a solid battle RPG.

Edge rating: Three out of ten





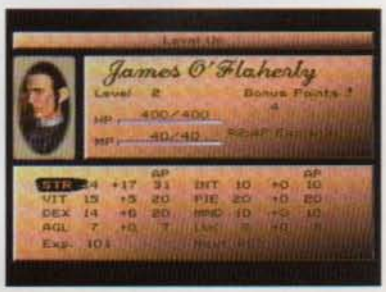






These quality rendered cut-scenes don't make up for the problems with the game's battle sequences. While the enemies are easy to beat, the frequency of the battles becomes annoying





Searching the monastery for items is made difficult by the random battles that await down every corridor. These at least mean that soon your character's stats will be boosted sky high, due to the constant fighting

Horror sound

Sacnoth desperately wants *Koudelka* to be taken seriously as gothic horror, but this is made even more unlikely by the game's awful sound. In horror games, just as in movies, sound effects and music play an important part in building atmosphere, whether it's by using a distant groan, a thudding heartbeat or a sinister melody. Despite its four discs, it appears that so much space has been allotted to mundane speech samples in *Koudelka* that the battle scenes have to make do with clunky effects and a sole, completely inappropriate piece of RPG muzak.

Parasite Eve 2

Format: **PlayStation** Publisher: **Square Europe** Developer: **Square Japan** Price: **£35** Release: **September**



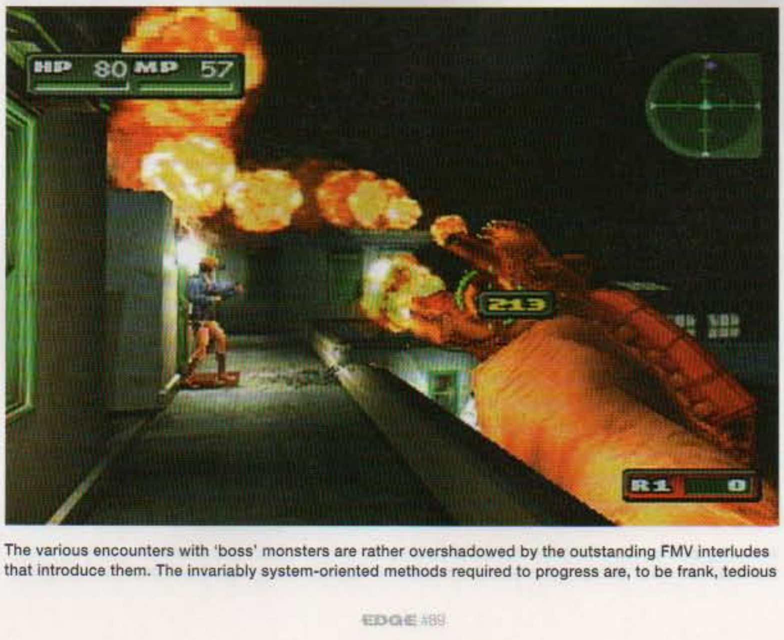








Unusually for a Square game, your character's magical attacks are not enormously OTT – a far cry from the self-indulgent extremes of *FFVIII*



The various encounters with 'boss' monsters are rather overshadowed by the outstanding FMV interludes that introduce them. The invariably system-oriented methods required to progress are, to be frank, tedious

What's the story?

Parasite Eve 2's plot-furthering asides are wonderful to behold, but its dialogue is truly execrable. The omission of voice acting initially appears to be an oversight. With time, however, you come to regard it as a blessing – the woeful script on offer hardly lends itself to entertaining vocal exchanges. Like the similarly blighted *Resident Evil*, it's fortunate that the implied narrative in certain scenes – a room full of slaughtered SWAT troopers, for example, or a seemingly harmless woman transforming into a hideous monster – introduces a modicum of atmosphere.

With its *Final Fantasy*-style 'random' battles and RPG leanings, the original *Parasite Eve* was an unusual reworking of the survival horror brief. After no doubt jealously eyeing Capcom's continued success with the *Resident Evil* franchise, Square has opted for a more conventional approach in this sequel.

It's hard to dispel the suspicion that the use of prerendered environments has become an admission of limitations – be they of programming team, resources or chosen format – rather than a style issue. It's a ham-fisted way to present a game environment, albeit comparatively cheap.

It is, however, a clumsy way to build a combat-oriented adventure. Aya Brea, the returning heroine, is leaden to control. Worse still, she has a frustrating propensity to moonwalk against scenery. By filling (and then, invariably, re-populating) maps with generic monsters, *Parasite Eve 2* leaves the player inured, almost bored with its combat sequences. There's an onus upon positioning Aya behind objects or running to another vantage point before blasting opponents, whose feeble AI can't handle this bewildering conundrum. This isn't, of course, a design fault – and neither are the instances in which you fight an off-camera enemy.

From the phenomena of 'brushing' Aya against scenery in order to find hot spots – interactive elements or items – to constant pauses to pull data from CD, *Parasite Eve 2* exhibits familiar flaws. Furthermore, the relatively ambitious nature of its backdrops all too often demands active suspension of disbelief – encounters with interactive-seeming but actually inert objects impedes any growing sense of immersion.

Being a Square production, *Parasite Eve 2* is host to accomplished FMV sequences, not to mention the odd marvellous cut-scene generated on the fly. It's a shame, then, that it often feels as if the action between these showy moments merely serves to fill in the gaps. From cryptic-seeming (but actually simple) puzzles to basic exploration and key finding, there's little more in the way of conten than a certain Capcom opus from years ago.

At its best, *Parasite Eve 2* is comfortable; there are worse ways to spend an afternoon. But exciting? Rarely, outside the boundaries of its cut-scenes. With videogames, participation is king – and Square, with its love of extravagant showmanship, would do well to remember that.

Edge rating: Four out of ter

Seaman

Format: **Dreamcast** Publisher: **Sega** Developer: **Vivarium** Price: **$50 (£33)** Release: **Out now (US) TBC (UK)**

The concept is simple: an electronic pet on your Dreamcast, a sardonic fish with a human face. Raise him, feed him, keep him warm, watch with pride as he grows and ages. With *Seaman*, though, comes a microphone that adds a twist – you can talk to him, and he'll talk back.

As a baby, he'll coo and giggle to your words. As a toddler, he starts to recognise and repeat them. The first time he says hello is a proud moment, and he'll respond to the word 'play' gleefully, squealing 'play, play, play,' right back at you. Becoming the Seaman equivalent of a teenager makes him sulky, and from there it's a short jump to the rude, sarcastic, vaguely disinterested fish who depends on you for his survival.

Voice recognition is occasionally shaky, but smart enough to enable your pet to ask you questions about your age, birthday, job, and more, and to correctly interpret the answers. The AI provides intelligent and witty responses, and often surprises. Simplistic, yes, but it's also beautiful, terrifying, and unforgettable; you'll remember your first conversation with your fish. Limited it may be, but where other games wash from your memory, *Seaman* leaves an indelible stain.

Edge rating: Six out of ten



Tap on the glass and your Seamen will swim towards you, alerted by the noise. It's also possible to hypnotise your fish – move the hand icon in circles around his faces and his eyes will follow it





By picking up your fish you can get an idea of his size. A separate habitat tank means you can raise larvae and moths, vital food for a growing Seaman

Heavy Metal: FAKK 2

Format: **PC** Publisher: **Gathering Of Developers** Developer: **Ritual Entertainment** Price: **£30** Release: **Out now**



By pressing the left mouse button during a swipe of your sword, a special move can be executed. The move depends on what *FAKK 2* is holding in her left hand, but will more than likely dismember an enemy





The fantastical settings are colourful and varied,a far cry from the endless greys of Ms Croft's adventures. Enemies are also creatively designed, and a joy to destroy

Rather than creating its own heroine and proportioning her like a porn star for marketing purposes, Ritual has skipped the design middlemen and whisked genuine porn star Julie Strain from B-movie infamy. Strain, the real-life inspiration behind the title character FAKK 2, leaps, crawls, and climbs her way through numerous colourful future fantasy settings.

Tomb Raider is the obvious reference point; exploring comes à la Lara, but fighting is more involved. FAKK 2 can hold weapons in either hand, meaning it's possible to keep a sword in one hand for close combat while using a pistol. Swapping one weapon for a shield means you can block, but enemies can do the same, and combat can be a matter of timing rather than the manic firing and running away common to similar titles.

The *Tomb Raider* structure is given an invigorating new look, and while there's nothing wildly different between this and the Eidos title, what pushes *FAKK 2* ahead is the combat, the slightly less linear puzzles, and the entertaining game world. It's historically confused lo-fi sci-fi where lizard-green monsters are slain by slings, semi-automatics, and lightning-charged swords – and it's refreshingly fun.

Edge rating: Seven out of ten

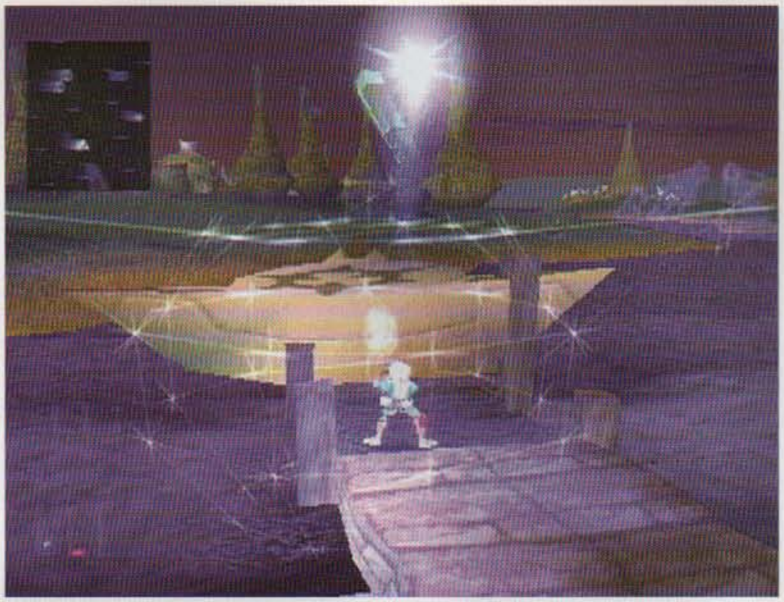
Terracon

Format: **PlayStation** Publisher: **SCEE** Developer: **Picture House** Price: **£35** Release: **Out now**





Dramatic views are complemented by some impressive pyrotechnic effects, but greater variation in both gameplay and appearance would be more welcome



Over the course of his endeavours, Xed must balance the use of 'genergy' as both ammunition and raw material. Items such as the floating platform above must be constructed by using the appropriate colour

There has been a minor proliferation of videogame Greys of late. *Terracon*'s protagonist, Xed, is more congruous than *Perfect Dark*'s Elvis, but it would be unfair to stretch the comparison. The game pushes the PlayStation to its limits and defies easy categorisation, but the abundance of good ideas do not quite gel.

Xed's attempts to save the solar system from the terraforming robot that wiped out his race take place over several planets and 32 free-roaming levels. The E-Scape graphics engine enables an impressive draw distance, and later levels offer expansive environments, although there is minimal variation in appearance.

Gameplay also offers little in the way of diversity. The developer has tried hard to add an element of resource management, with 'genergy' used both as ammunition and to construct necessary items from meshes dotted around the alien landscapes, but in practice little thought is needed to progress.

Fundamentally, the game is a simple shoot 'em up in which control inadequacies and poor collision-detection become tiresome. The few levels that stray from this formula further emphasise deficiencies in control, which is a shame. *Terracon* is not a bland or derivative title, simply an original premise that is not successfully implemented.

Edge rating: Five out of ten

Tenchu 2: Birth Of The Assassins

Format: **PlayStation** Publisher: **Activision** Developer: **Acquire** Price: **£30** Release: **Out now**

Cynics will note that *Tenchu 2* has sneaked into the shops with little fuss. Could Activision be hoping to sell a substandard title on the back of its success with the original and enjoyable *Tenchu*?

Unquestionably the sequel suffers from massive technical deficiencies. The graphics are rudimentary, textures pixellated, animation robotic, draw distance short, controls awkward, loading times irritating, polygon counts low and enemy AI basic. Yet, for all its obvious flaws, *Tenchu 2* still proves to be a fairly enjoyable and compulsive title.

Most impressive is the manner in which the game rewards and punishes you for your actions. Whether through fluke or comprehensive playtesting, the balance achieved is perfect. Successfully sneak up to an enemy and they can be dispatched easily with one stroke. But alert a sentry, and awkward energy-sapping combat must be initiated. Extra points are awarded for completing the level with as few 'spots' as possible. The drive to finish the game with a 100 per cent assassination rate is really quite compelling.

With two playable characters, a range of innovative weapons including blow guns and caltrops, and even a mission editor, *Tenchu 2* may win over those who are willing to overlook its cosmetic failings.

Edge rating: Six out of ten





The patient will enjoy *Tenchu 2*'s more surreptitious moments. Hiding in water using a reed (top) or creeping along walls (above) can be hugely effective



If your stealth tactics fail then your enemies must be dispatched in traditional hack-and-slash fashion. There is only one attack and one block option, making combat feel like the now-dated *Prince of Persia*

Middleware on top

Cross-platform development proves a boon for Criterion's *RenderWare3*

Criterion technical director Adam Billyard



Criterion Software RenderWare 3

URL
www.cls.com
www.renderware.com

One particular piece of tittle-tattle currently doing the rounds features a large US publisher, which, after letting its in-house team fiddle with PlayStation2, swiftly switched the target platform of its next two AAA-licensed games to Dreamcast. Hard to believe, maybe, but the key point the bar-room raconteurs fail to mention is that the unnamed monolith's decision rested not on the complexity of the Sony machine's parallel processors per se, but the timescale required to get the specific titles to market.

This is a scenario that isn't lost on **Adam Billyard**, Criterion Software's technical director. "I think people now recognise that you can have the best game ever but if it's six months late, you're screwed. Getting stuff out on time is a big part of development these days," he says, a big grin playing across his face.

The reason for his happy demeanour is clear. The upshot of an unstable transitionary period of the games industry cycle combined with the drive towards multiple-platform development has been an explosion in demand for the Guildford-based middleware vendor's *RenderWare3* package. "I just don't think people realise there are shitloads of titles using *RenderWare3*," Billyard says. It's currently being used to create games in more than 170 studios worldwide.

Criterion has certainly come a long way since the painful learning curve of *RenderWare2*. "*RenderWare3* doesn't share a single line of code with the previous versions," he explains, ruefully. "We threw the whole thing away and started again." But the results speak for themselves. While many developers would rather express a preference for *FIFA* over *ISS* than admit to using middleware, some of the biggest games publishers have signed on Criterion's dotted line. Deals announced so far include Interplay and UbiSoft. The first *RenderWare*-developed PlayStation2 titles are shipping in Japan from studios such as ASCII and Jaleco.

The greatest coup has been the support of Japanese giant Konami, which is using *RenderWare3* in all its Japanese studios, with the notable exception of Hideo Kojima and his *Metal Gear Solid 2* team. "I remember when we were in Tokyo and we had simultaneous demos running on PlayStation2, PC and Dreamcast," recalls Billyard, "I think then Konami saw the writing on the wall. And while there's always room for the $20m blockbuster, that's not what it's all about. The meat-and-potato stuff is about not arsing around trying to reinvent the wheel. At the end of the day that's a compelling argument."

It's particularly compelling with some publishers only allowing developers nine months to turn a title around. With the ever-present opportunity of content convergence, this is a situation that is only likely to get worse. "Everyone talks about convergence, and it is going to happen," says Billyard. "You've got more outlets – it may be consoles, it may be digital TV, and it really doesn't work to say you are going to spend 18 months on a game."

He does caution, however, that *RenderWare* shouldn't be viewed as a magical black box that can effortlessly swap code between platforms. "It absolutely isn't just press a button and out pops a Dreamcast version," he says. Even if an API could compile code completely unchanged between another platforms, it wouldn't be a good thing. Developers should always play to the strengths of a platform. For PlayStation2 this obviously means more polygons, whereas for Dreamcast it could mean more textures, or transparency layers.

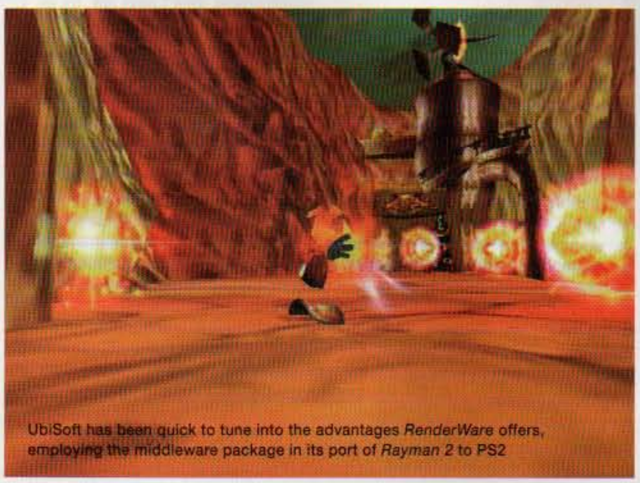
"*Renderware* does simplify the process a great deal, though," he says. "I think people will be pleasantly surprised once they get something going on one system to realise that it won't be a nightmare to bring it over to another platform."

Ray of light

The highest-profile game using the cross-platform qualities of *RenderWare3* is the PlayStation2 version of UbiSoft's limbless cutie *RayMan 2*, officially titled *RayMan 2: Revolution*. "UbiSoft really understands what the issues are," says Billyard. "There's no doubt it could port the game without *RenderWare*, but why would it chose to do something that would take two years when it has a very strong brand and a proven game concept ready to go?"

The game itself is an update of the PC and Dreamcast game that has already been released, featuring additional and larger levels, more enemies, and refined graphics and lighting. The title is scheduled to be released the week after PlayStation2 launches in Europe.

"It's no good showing people spinning teapot demos," Billyard explains. "The thing that impresses engineers is showing them their proprietary formats running in *RenderWare*. UbiSoft have been pretty successful in moving all their assets into a *RenderWare* form." The result is *Rayman 2* up and running on PlayStation2 within months, not years. As Billyard himself admits, "It's *RayMan 2*, running on *RenderWare*. It's a bit eerie!"



UbiSoft has been quick to tune into the advantages *RenderWare* offers, employing the middleware package in its port of *Rayman 2* to PS2





A number of Japanese development houses have adopted *RenderWare3*, and have already started shipping titles

PS2 Bristol fashion

SN Systems' dev tools bring online capabilities to PS2

SN Systems CEOs Andy Beveridge and Martin Day





When the first batch of black boxes marked 'T-1000 TOOL', left Sony HQ, the obvious delivery locations would have been 'Derby, Core' or 'Newcastle, Reflections'. But instead 'Bristol, SN Systems' was top of the PlayStation2 dev kit list. Relatively unknown outside the industry, within it the reputation of this small tools specialist is second to none. It has already sold its *ProDG Windows*-based PlayStation2 development tools to more than 100 studios in multiples ranging from a few units into the hundreds.

"Sony has been encouraging from the very beginning," says **Andy Beveridge**, one of the company's directors. "Even before they launched their own *Linux* tools, they made it quite clear that they wanted us to do *Windows* tools, and they expected most developers to work on *Windows*."

This is a gap in the market SN Systems has been happy to fill for hardware manufacturers throughout the ten years of its existence. Back in the days of the Saturn, more than 70 per cent of western Saturn development took place using SN Systems' tools, which weren't approved by Sega.

Unsurprisingly, for anyone who knows anything about PlayStation2's architecture, a lot of time is being spent on the co-processor vector units (VUs). "We're trying to extend the basic debugging code," says **Martin Day**, SN Systems' other director. "The problem is that if you debug the VU by going through the instructions, it can behave differently to if it runs straight through."

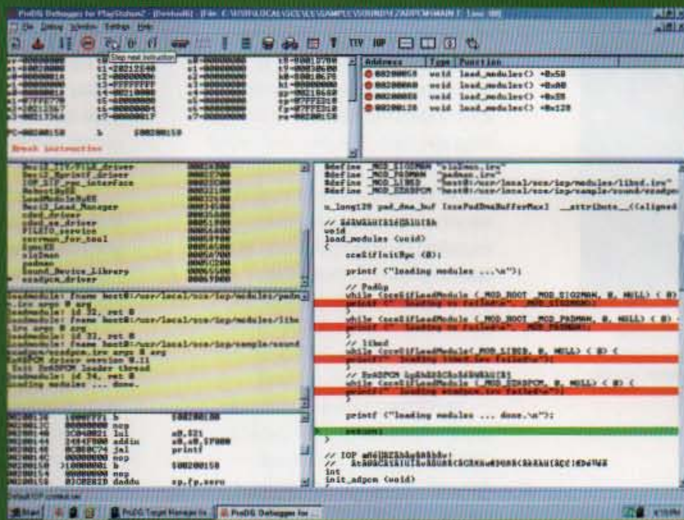
"The view early on was that the VUs were pretty much undebuggable," says Beveridge. "The more we've had the change to play with the hardware, the more ideas we've had."

Another area to be looked at is adding profiling performance analysis functions. "One of the keys to getting the performance out of PlayStation2 is making sure all the components – the CPU, the VUs, and the graphics chips – are all working at the same time and you're not getting a bottleneck anywhere," Day explains.

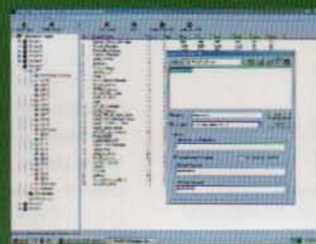
With more complex consoles released at a more regular rate, the company's workload keeps growing. Beveridge estimates that it took five or six times as much work to complete the PlayStation2 development tools compared to the original console. Dolphin, Game Boy Advance and X-Box will all be supported, however.

"There are some possibilities with X-Box," says Day. "We're talking to Microsoft. They think everyone will be happy with *DevStudio* [Microsoft's development tools], but we think there's some stuff we can do, especially in the graphics chip debugging."

The only black cloud on the horizon, and the reason behind the decision not to support Dreamcast, is born of success. "We have more work than we can shake a stick at," Beveridge says. "We just have problems recruiting people."



Bristol-based SN Systems has built a formidable reputation within the industry, and enjoys an excellent relationship with Sony



URL
www.snsys.com

PlayStation2 wired

One of the most interesting pieces of code SN Systems has released is its PlayStation2 TCP/IP stack. This standalone piece of middleware allows developers to create online multiplayer content.

"It was a bit speculative, really. When we started we didn't know what Sony's plans were," explains Martin Day. "We knew they had broadband access but we didn't know if they were going to provide modem access or a TCP/IP stack. It's working out well because Sony have told us they are happy for us to go ahead and do modems and USB-based Ethernet adapters as well."

Two thirdparty companies are already known to be preparing to release USB modems to online gaming. It's expected that the stripped-down feature set of the modems will make them cheap enough to be bundled with games, as well. And with Sony unwilling to make any announcements about narrowband connectivity, developers can use the technology any way they wish. "They could connect two PlayStation2s back to back or connect them through the Internet, or connect them to a server on the Internet," says Day. "We provide a totally generic TCP/IP stack. They could have games which are PlayStation2 or even have a server that will allow PlayStation2 and PC games or Dreamcast to play together."

Power to the people

Expect better mods and levels thanks to Discreet's *gMAX*

Discreet's developer of software Jeff Yates



discreet



3D Studio Max **has become an industry standard.** ***GMAX*** **will be a stripped-down version**

The gap between professional game developers and prosumers has been narrowing, thanks to the sophistication of the tools available to the budding moddist. But at the recent Siggraph expo, Discreet removed all the barriers with the announcement it will be releasing a stripped-down version of its industry-standard modelling package *3D Studio Max*. Named *gMAX*, the free, 30Mb download will enable gamers to generate their own content for games created with *3D Studio Max* and which support *gMAX*.

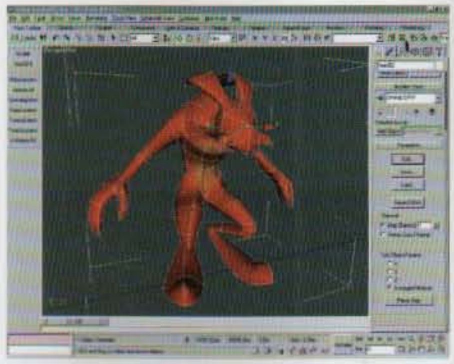
Jeff Yates, Discreet's director of software development, explains: "The move to *gMAX* is a clear decision to stay focused on what we know and love to do – creating tools for game content developers and to continue to stay supportive of value-added developers."

Game developers will be able to license the rights to use *gMAX* and ship what are being referred to as 'game packs', which consist of plug-ins and scripts, with their games. Players will then be able to create their own levels and characters using *gMAX*. They will even be able to sell content on the Net without having to play a licence fee to Discreet. "We hope that something like 'eBay' for games content could grow out of the *gMAX* community," says Yates.

Compared to existing editing tools such as id's *Quake* editor *QERadiant*, *gMAX* will offer amateur designers a more stable, well-documented and supported package. It also has a lot more functionality, including 3D polygon modelling, animations, scripting, modifier stacks and more viewing and manipulation tools than have been available previously.

"In investigating the concept, we've realised that there are some very cool features in level editing applications that we should have been thinking about a while ago," says Yates. As a proof of concept exercise, Discreet is experimenting with implementing *QERadiant*-style brush techniques on top of the *gMAX* core, which will be based on the forthcoming release of *3D Studio Max 4*. It has already demonstrated import/export compatibility with *Quake III*, and another early adopter for the technology will be Microsoft's perennial favourite, *Flight Simulator*.

An SDK for developers will follow the spring release of *3D Studio Max 4*, with the consumer download expected to go live in autumn 2001. The first *gMAX*-enabled games are expected to ship for Christmas.





It will be possible to create content for games created with *3D Studio Max* and which support the *gMAX* package

URL

www.discreet.com
www2.discreet.com/events/siggraph2000/pdf/gmax.pdf

Running gMAX

The minimum PC specification needed to use *gMAX* will be a 266MHz machine with 64Mb of RAM, running *Windows 98*, *2000* or *NT*, which is the same spec that will be required to run *3D Studio Max 4*. A 3D graphics card will not be strictly required, as *3D Studio Max* supports the Heidi software graphics driver, but having one will obviously speed up working processes. Most cards support *3D Studio Max*, with nVidia's GPU cards being the preferred option.

The new shape of Emotion

Sony reveals the scope of its ambition with the massively parallel GScube

Criterion technical director Adam Billyard



SONY







Siggraph attendees were treated to rendered footage from the forthcoming 'Final Fantasy' movie in realtime, courtesy of Sony's GScube







The all-singing, all-dancing *RenderWare* package had 'Antz' running on GScube

With Ken Kutaragi in attendance, Sony continued to unveil more pieces of its plan for the entertainment space with the demonstration of its graphics visualiser, GScube, at Siggraph 2000. Consisting of 16 PlayStation2 Emotion Engine units and 16 enhanced versions of the Graphics Synthesiser rendering processors, GScube is designed to bring the realtime rendering speeds of the games industry to film production.

Ten times more powerful than a single PlayStation2, the prototype box is the forerunner of development tools that will be ten times more powerful again. As demonstrated at the show, GScube is already close to possessing the capacity to render in realtime CGI scenes which, using standard practices, are taking several hours to complete per frame. At Siggraph, it rendered scenes from the Dreamworks movie 'Antz' and footage from Square's forthcoming 'Final Fantasy' movie in realtime, running at a resolution of 1920x1080 at 60fps. Such is the quality of the output that it was beyond the interlaced scan of the digital HDTV standard, and so had been be shown on newly developed Sony high-definition monitors. A full commercial version of GScube is expected to be rolled out before the end of the year.

According to **Adam Billyard**, Criterion Software's technical director, the key to programming GScube will be load-balancing the 16 parallel processors. And as Criterion's *RenderWare3* package was used as the viewer for the 'Antz' demonstration, Billyard is one of the few people to have begun to get to grips with Sony's latest box of tricks. "After two-and-a-half weeks of very hard work we had something working that was pushing about 65 million triangles per second," he says. Criterion expects to have an optimised version of *RenderWare3* ready for GSCube's launch.

"It's a fascinating machine in that you can load-balance by doing tile rendering as well as pipeline rendering," Billyard explains. "Within the 16 processors you can configure them differently, or do all sorts of things – such as daisy-chaining down the frame buffer."

Not a standalone box, GScube needs to be fed information from a broadband server, such as the SGI Origin, which was used at Siggraph. Not content with the realtime rendering applications, Sony is also pushing this combination as a broadband distribution and projection solution for digital cinemas.



GScube features 16 PlayStation2 and 16 enhanced Graphics Synthesiser rendering processors – the key to its processing apparently lies in load-balancing the components

URL
www.gscube.com (still under construction)

Cube power

CPU
Clock frequency: 294.912 MHz
Memory size: 2Gb
Memory bus bandwidth: 50.3Gb/s
Floating point performance: 97.5GFLOP
3D CG geometric transformation: 1.04Gpolygons/sec

Graphics
Clock frequency: 147.456MHz
VRAM size: 512Mb
VRAM bandwidth: 755Gb/s
Pixel fill rate: 37.7Gb/s
Max polygon drawing rate: 1.2Gpolygons/sec

Misc
Host interface transfer rate: 2.4Gb/s

Dimensions 424x424x424mm
Weight 48Kg

Optimising DC online

Sega offers French-developed package to developers for free

Sega associate director Serge Plagnol







The TCP/IP stacks used for *ChuChu Rocket!* were optimised for a browser, not a game

URL
www.nexgen-software.com

Still limited to offering western gamers *ChuChu Rocket!*, Sega Europe is finally sorting out its console's battered online reputation. Following a worldwide licensing deal with NexGen Software, developers will be able to use its low-level TCP/IP stack, called NexGenIP, to create online content – and they won't have to play a licence fee to use the code, either.

"NexGenIP is carefully layered to offer the exact features developers need," explains **Serge Plagnol**, Sega's associate director for developers' technical support. The TCP/IP stack formats data to be sent over the Internet, while NexGenIP has been designed to minimise the overheads for the processor. This is clearly a big issue for consoles, as CPU usage is a key factor determining the speed of online games.

"Our objective is to offer developers one of the most complete embedded TCP/IP stack which is perfectly tuned to exploit our optimised architecture," outlines Plagnol. "The stack also offers features that make online game logic prototyping easier. This is a great time saver while developing network code."

Although Sega has developed its own networking API, KAGE, this was a high-level API. "KAGE, like any high-level API, requires a TCP/IP stack such as NexGenIP to send data over the Internet with the highest performance," says Plagnol.

In contrast, *ChuChu Rocket!*'s online mode uses the TCP/IP stacks that were developed for the Dreamcast browser. But because this was optimised for a browser and not a game, the placing of arrows in *ChuChu Rocket!* suffers from an embarrassing lag of a second.

Plagnol confirms that firstparty and thirdparty Dreamcast titles will be released this year using NexGen's code, but refuses to name specific titles. Sega's online release schedule includes *Quake III*, *KISS Psycho Circus* and *Half-Life*.

NexGen, a 16-strong company based in France, specialises in designing embedded Internet Protocols for a range of different applications. Previous clients include Ericsson, ARM and Dassault. It has developed online products ranging from simple point-to-point protocols to mail utilities and Ethernet connectivity.

Designed to be portable across a wide range of CPUs and OSs, the underlining TCP/IP stack was only recently optimised for Dreamcast's Hitachi SH4 CPU. "The resulting port is probably the best one we have done," comments **Jean-Paul Medina**, NexGen's president. "It manages to improve both the portability and the performance."

Diary of a videogame

The importance of E3 can never be overestimated by a developer

Brain In A Jar diary, part one
by managing director Matthew Gabriel













Brain In A Jar is composed of Ferrari nuts, but even as the team got to work on a demo for a game featuring its favourite motor, working out which publisher held the rights proved tough

The Codeshop diary now focuses on two projects from two developers. Brain In A Jar's next instalment will be in E91

We have made it at last. It started with a dream, but now we have a team, a contract with a publisher and development is underway. So, how did we get here?

Having worked together on previous products and having had numerous conversations about starting our own development company, Oli Wright, Carl Dalton and I formed Brain in a Jar in December 1998. It seems so long ago now, and looking back we have been to Hell and back several times already.

We had already decided that we wanted to create a racing game, but it was the dream of developing a Ferrari racing game in particular that kept us going through the low points. We are all complete Ferrari nuts – always have been and always will be. I can't explain what it is, but I guess it's much like supporting your football team. The three of us dedicate every other weekend to Formula One, even getting up in the middle of the night to watch races on the other side of the world. So we set ourselves the task of not only developing a convincing demo, but also of tracking down who held the Ferrari licence.

While Carl and Oli got down to work on our first demo, I spent my time talking to people, bringing an agent onboard and locating the publisher holding the licence. You would have thought the latter would be the easy part, but in fact it took us a long time – several publishers made noises suggesting they had it, but none of them would actually confirm.

By the time we had developed the first demo, we had started to use the services of an agent: Mark Cochrane from The Games Agency. On the strength of our first demo, Mark helped us set up meetings with several publishers. They were all very positive, but none would make any commitments – they wanted more. We had to develop the demo further.

Scraping together our final pennies, Oli and I headed off for E3 '99 armed with a new demo. We had some luck locating the Ferrari licence, as Mark had put us in contact with Alex Ward at Acclaim, and we thought – although we weren't sure – that it was the legitimate holder of the Ferrari licence. E3 proved successful, and our relationship with Acclaim was growing. I discussed possibilities with Rod Cousens over the following weeks and a plan was hatched. Rod loved what we had, and was willing to take a gamble on us, funding us to develop a more substantial demo over the next couple of months.

We developed the final demo with Ferrari in mind. Ferrari is about passion and history, and that is what we wanted to capture. It goes without saying that the demo had to prove we were technically capable of creating a groundbreaking racing game, but that isn't enough to do justice to the Ferrari name, so we tried to incorporate the passion of Ferrari in the handling and style of the demo.

'We had already decided that we wanted to create a racing game, but it was the dream of developing a Ferrari racing game in particular that kept us going'

In September, a few days after ECTS '99, we presented our final demo to Acclaim. This was our big chance. The presentation went very well and we had most of the people in the office taking a look at what we had created. All were impressed and we felt confident. The next day I asked Rod whether we should be happy. "You should be ecstatic," he said. It looked liked we had got the deal, and the rest should be easy. Or so we thought.

Later in September, I went with Acclaim to the Tokyo Game Show, which was very impressive. (If you have the means, I would highly recommend it.) One night over dinner, Rod and I briefly discussed the terms of a deal, and these terms formed the basis of the development contract with Acclaim.

Now the hard bit: contract negotiations. My advice to anyone thinking about starting up is to make sure you have a good lawyer and a good accountant. They will cost you money, but believe me it will be worth it ten times over. The contract negotiations seemed to take forever, but that is the nature of contracts. You don't spend your time arguing over the royalties or the advances, but over the small clauses that only come into effect if everything goes pear-shaped. It is annoying, as it doesn't feel that these things are important, but don't underestimate the importance of this side of the contract and don't underestimate how long it can take. Even with the best will of both parties, it can still take months. We actually signed around the time of E3 in May this year. It was during these seven months that we felt we were making frequent journeys to Hell, although looking back it was both worth it and necessary.

So, once we were signed and money was coming in, we had to go out and get the most important thing a company can have: the team. We looked first at those people we had worked with before. We are great believers in small but good teams. We knew people who were good at what they did and would work well together. We made good offers to them and all accepted immediately. Luckily, Rik Ede from Dolby is a good friend of ours and his company is taking care of all our audio needs. Now we have a full team of eight people on board and development has begun. Our thanks to Chris Green, Craig Grounsell, Dean Burns, Nigel Kershaw, Bev Bright and Gamesound for joining us.

In fact I thank everyone who helped us get here, and wish all the best to anyone who is just starting on the road. Take the highs with the lows and have confidence in your abilities. Surround yourself with quality friends.

And the company name? Someone said they had always wanted to have a company called 'Brain in a Jar', and no one could think of a reason not to.

The making of... Lords of

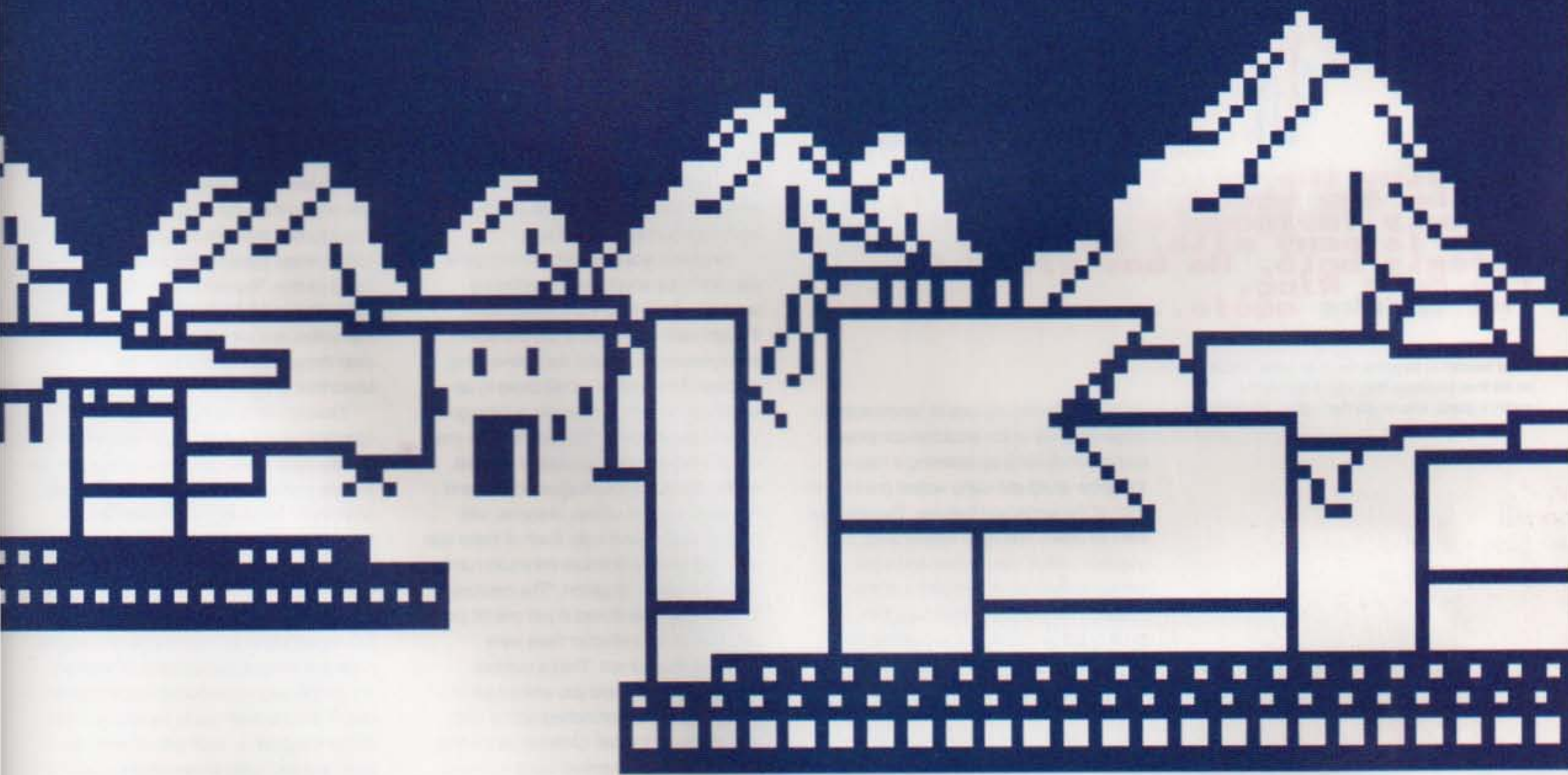


Lords of Midnight was truly a thing of beauty. Its icy wastes, craggy citadels and distinctive deep blue sky brought a dimension of style to the ZX Spectrum of 1984 which served to dignify, rather than trivialise, videogames. And, like all the games which alter the way we think about electronic entertainment, it wouldn't fit neatly into any given category. Strategy, RPG, text adventure – it was all of these and something quintessentially more. An independent universe which would leave a residual trace in the memory of all those who traversed its furthest reaches.

The goal was straightforward: to overthrow the evil witchking, Doomdark, and restore stability to the land of Midnight. The execution was somewhat more complicated, as sole creator **Mike Singleton** explains: "I wanted to allow the player to explore and discover new places and new allies in a game environment that had the breadth and depth of a real country. The vital seeds were the map and the story; with those two elements finalised everything else very quickly fell into place."

Midnight

Coder Mike Singleton breathed life into huge, convincing gameworld Midnight, stunning a generation of gamers in the process. **Edge** talks moonprinces, witchkings and cassette tapes with the man who fought the Spectrum – and won



Singleton admits to Tolkien's influence, yet *Midnight*'s narrative certainly had its own power to captivate. Four characters were playable: Luxor the Moonprince; his son Morkin; Rorthron the Wise; and Corleth the Fey. Each character could be moved independently around the vast world, recruiting armies and battling creatures. Doomdark's own 250,000 Iceguard warriors were determined to hunt down and kill your men, and had the dreaded Ice Fear on their side – a terrible psychological power which could sap an army's motivation to fight.

However, the allies had two powerful weapons. Luxor owned the Moon Ring, which gave him powers of command and vision. This enabled him to direct all the other characters. Morkin, meanwhile, could totally resist the Ice Fear, giving him the opportunity to seek out and destroy the Ice Crown (Doomdark's power source) at the Tower of Doom in Ushgarak. In this way two strategies could be employed to win the game: the military campaign with Luxor, or the stealthy approach with Morkin.

Singleton's vision was ambitious, and he would have to apply his programming skills towards organising and calculating vast armies across a map consisting of 4,000 independent locations with 32,000 separate views. Though movement commands were simple enough (typing NE, E, SW, etc), the player would have to consider when to rest, when to recruit, and which terrain to attempt to negotiate. Each had a significant effect on the player's forces status. Interestingly, the adventure game *The Hobbit* provided the motivation for the technical intricacies. "It was one of the very first adventure games to include pictures, and I was suitably impressed by it," says Singleton. "But two things struck me about the graphics. Firstly, although the cameos and landscapes were nice, they were purely decorative – they had absolutely zero function in the game. Secondly, it took ages for the graphics to be drawn, and I mean ages – not half a second or maybe a whole second, but one minute, maybe two."

The limitations of the Spectrum's 48K memory and difficulty in displaying colours would actually define *Midnight*'s stark visuals and gameplay mechanics. "I described [to





Luxor needed to be protected at all costs. Should he die then the Moon Ring would fall into the enemy's grasp, who would then control his armies

Beyond Software] my idea of 'landscaping' – 3D panoramas which would be composed and drawn realtime by scanning a map of the game world and using scaled graphics for each of the landscape features. The graphics were all drawn directly to screen using the graphics utilities I had written and were largely dictated by the limitations of the medium. I wanted all of the characters to be bright and colourful, in contrast to the uniformly blue-and-white landscape. But on the Spectrum, you can't colour individual pixels, you can only colour whole 8x8 pixel cells – a maximum of two colours per cell. This means that the characters had to be designed so that their colours fit to the cell boundaries, but also so that they don't end up looking like Lego bricks."

Due to *Midnight*'s complexity, the project had to be meticulously planned from the start. "The real key was not to write the game first and then try to compress it, but rather to write the game in compressed form right from the word go. I knew the landscape graphics would take up a lot of memory, so the first couple of weeks were spent writing routines that used a specially modified form of run length encoding and decoding for these graphics, as well as some utilities in BASIC that would enable me to interface with a graphics tablet and automatically scale and then manually touch up the landscape features I had drawn."

Singleton was adamant that the game was not to be about merely wandering around and admiring the scenery. Much thought went into creating the characters and creatures to support the over-arching concept. Small details would prove to be significant once the player was submerged into the game world. "The data that the map had to store included landscape features, armies, place names, magical objects and creatures such as wolves, dragons, wild horses, skulkrin and trolls. Each of these was encoded with the absolute minimum number of bits," explains Singleton. "The creatures, for instance, were stored in just one bit per cell. That bit said whether there were creatures there or not. Then a number-scrambling routine told you which type of creature it was by scrunching up the map coordinates of the cell. Likewise, all the text in the game was tokenised using a one- or two-byte code per word, and the words referred to were further compressed by using only five bits per character."

Other technical headaches were to give Singleton more late nights. The 48K memory capacity was just too limited to contain all the code. As Singleton stresses, every spare byte had to be conserved if Morkin and Luxor's quests were to run with any degree of success: "The code itself was kept manageable by using short subroutines for almost any piece of code that cropped up more than once. Nevertheless, it was only on the third rewrite of the code that I finally managed to fit everything in. By that stage you are reduced to expedients such as rearranging the order of subroutines so that a routine that calls another as its final call is instead placed immediately before the called routine. You can then remove the call instruction and the return from subroutine instruction, and allow the first routine to drop through into the second. This saves four whole bytes."

Dealing with ordering routines was commonplace in BASIC. More exacting still was dealing with the Spectrum's infamous storage medium – the cassette tape. "*Lords of Midnight* was designed, assembled and tested entirely on cassette tape, which was almost as slow to load as *Windows 2000* is to boot up your PC," recalls Singleton. "I still have a cardboard box at home full of 100 five-minute tapes which comprise the source code and the graphics of *Lords of Midnight* and all the back-ups and back-ups of back-ups. The code itself had to be split up in ten different segments, each with its own little tape, and each with its own declaration of variable and subroutine addresses from the other nine tapes (and all typed in by hand). So, each of the rewrites involved changing each of the ten segments, strictly in order, because the address changes in the first would have a knock-on effect through all





the subsequent segments. Things like that make you very careful with your back-ups and your labelling of tapes."

Terry Pratt at Beyond Software saw the game universe coming together and had great faith in the project. He organised a three-month teaser campaign in magazines, and when the game was finally released it was met with an 'ecstatic' response. The only negative feedback Singleton remembers was at the press launch for the game: "I'd been demoing the game to journalists all afternoon in the bowels of some club in London and we were about to start dismantling the equipment when Tony Takoushi, who in those days was a journalist, swayed in, somewhat the worse for wear after a very long liquid lunch. He staggered over, and after about 30 seconds of watching the game pronounced, 'Tha'sh a pile of shit', and immediately left. With that seal of approval, the game became an instant smash hit."

Very rapidly, the game began to attract a core of passionate gamers who would send fan mail concerned with the most trivial or groundbreaking detail of the game into the videogaming magazines of the time. "The thing that did surprise me was how quickly some people managed to beat Doomdark," admits Singleton. "In less than two weeks someone had sent in a winning printout to Beyond (you could print out a scene-by-scene record of your game on the Spectrum's thermal printer). I had estimated at least a month or two. When I was testing the game it took me nine solid hours to gain a military victory against Doomdark, and I had all the maps and data to help me. We reckoned there must have been some fanatically dedicated people out there."

Singleton has spent most of his working life in the industry, bringing other well-respected titles into the world such as *Midwinter*. When asked if he preferred the self-sufficient days of 8bit coding to today's two year development cycles and publishing stresses, he expresses a complete disregard for nostalgia: "Would I rather be programming *Lords of Midnight* on a Spectrum or *G-Surfers* on a PlayStation2? Don't be silly. The new technology is even more exciting than the old was, even in its day. Our imaginations are still racing to catch up with what's possible now. There's so much more scope for creativity now. In five or six years' time, there will be categories of game no one's dreamed of."

The legacy of *Midnight* still lives on. *Doomdark's Revenge* (1984) pushed the Spectrum architecture even further with its 48,000 panoramic views – one full screen for every byte – and *The Citadel* (1994) brought realtime voxel rendered landscapes to the PC. Plans are even afoot to bring the fourth instalment of the game to the new generation of consoles. But wasn't *Lords of Midnight* a shining example of creativity blossoming because of, not despite, hardware limitations? Some might argue that the PlayStation2 may never have every ounce of its power utilised to such creative effect as displayed in Singleton's seminal title.



Doomdark could win in three ways: kill Morkin, kill Luxor, or capture the Citadel of Xajorkith, Luxor's base. Defending and attacking were both vital



RESET

Where yesterday's gaming goes to have a lie down

reload

Examining gaming history from **Edge**'s perspective, five years ago this month



Issue 26, November 1995

Back in November 1995, £3.50 bought you just under 60 pages of proper **Edge** editorial. (Perhaps that's why **E**26's cover star – one Conrad Hart – looked so thoroughly despondent, cowering on a prison bed with a copy of the magazine discarded by his side.) But, a feature discussing the future of strategy games aside, at least a number of considered elements made it on to this meagre number, including yet more juice squeezed out of an apparently withering fruit known as The 3DO Company, and an interview with Sony's **Phil Harrison** to coincide with arrival of the first PAL PlayStations.

From 3DO's Redwood City HQ, **Edge**'s writer reports that 'a major part of M2's future involves MPEG video... [which] is becoming increasingly important in games today'. Substitute 'potent realtime 3D rendering' into that assertion and 3DO may have been on to something.

Harrison, meanwhile, revealed that Sony's "biggest rival is apathy in the market". It would take that particular beast another five years to mature, of course.

An ECTS report led news, the show demonstrating just how serious a charge Sony was mounting. Things would never be the same again.

DID THEY REALLY SAY THAT?
3DO's **Trip Hawkins**: "I don't believe anyone's going to dominate the market – it's going to be carved up." Yes, but what about the size of the biggest slice?

DID EDGE REALLY SAY THAT?
From a caption in the *Fade To Black* review: 'Get the key, then do him'. From the review of *Bug!*: 'Graphically and sonically, *Bug!* is lovely'. Oh, how the magazine's vocabulary has changed over five short years.

TESTSCREENS (AND RATINGS)
Yoshi's Island (SFC; 9/10), *Destruction Derby* (PlayStation; 7/10), *Fade To Black* (PC; 9/10), *Chrono Trigger* (SNES; 7/10), *Bug!* (Saturn; 6/10), *Zero Divide* (PlayStation; 7/10).



1



2



3



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6

1. A fresh-faced Phil Harrison evangelises Sony's entry into the console hardware market 2. A slightly more cynical Trip Hawkins considers the future of 3DO 3. Philips finally finds its CD-i killer app in the form of Web browsing on your telly 4. Another of **Edge**'s legendary (cough) genre features 5. *Yoshi's Story* 6. *Bug!*, a Saturn flop

pixelperfect

The industry's favourites from yesteryear. This month, Rebellion's **Chris Kingsley** gets spacey





Predating *Elite*, *Star Raiders* was the first game to fully realise 3D space combat

It must have been about 1977 that I remember reading about the new Atari 800 in the Maplin Electronics Catalogue. The Atari 800 had a real keyboard and 16K RAM that could be upgraded to a massive 48K. It had great sound and astounding colour – it even had a 256-colour screen mode. What really caught my eye, though, was a game called *Star Raiders*, a 3D space game just like 'Star Wars'. It just sounded so cool.

For me, *Star Raiders* was the Atari 800's 'killer app'. It was the reason I wanted to get the computer, and the reason I nagged my mum and dad night and day. I convinced them it would be a great investment for my future. For once, it was true.

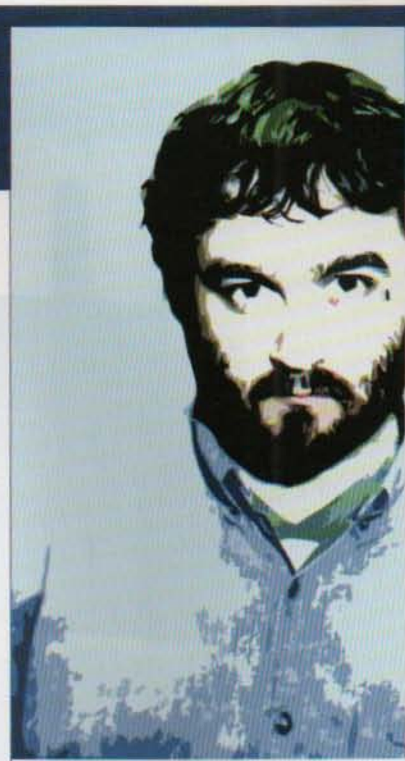
Just as I had hoped, it was 'Star Wars' in 3D – although there were no polygons. It used only sprites, or 'Player-Missile graphics', as Atari called them. The shots travelled in 3D, and when you destroyed an enemy you could fly through the debris.

There was even a 'real' starfield that gave a great sense of motion. The gameplay was great, too. There was action, but action that required skill and not just repetition. There was strategy, but it was in realtime. There was even resource management. And all this in 8K! I was hooked. *Star Raiders* made me want to make my own game instead of just playing others', a game that made me want to work out how they did it and do it myself, but even better.

FAQ

Ste Pickford

Managing director, ZedTwo Game Design Studio



Having trodden the path from 8bit hobbyist artist to big cheese of one of the north west's most respected codeshops, **Ste Pickford** is heading up ZedTwo's next-generation development drive.

What was the first videogame you played?
I have really vivid memories of playing both *Space Invaders* and *Sprint* in the late '70s. I remember at first thinking it was a really strange concept, to put money in a machine to play a game in which there was no chance of winning any money back (all arcade machines I'd seen up until then were one-armed bandits and the like), to pay just for the pleasure of playing.

What was the first computer you owned?
It was a long time before I owned a computer. My brother John had a ZX-81, then a Spectrum, then Amstrad 464s and 6128s, Tatungs, etc. I think my first may have been an Atari ST.

What was the first thing you ever created on a computer?
My brother wrote little art programs on both the ZX-81 and Spectrum, and, using these, both of us had 'computer-generated' pictures printed in *2000AD*, so that was the first published work.

What was your first job in the industry?
My first industry job was a freelance graphics job, while I was still at school (aged 14 or 15). I did the graphics for Amstrad *Ghosts 'n' Goblins* for the fantastic sum of £50. I was really excited, until I found out I only had four colours per level, rather than 16, so the results were pretty poor. I was proud of the loading screen, though, which also went on the C64 version. The first original game I worked on would have been either *Zub* or *Feud*. Both games were designed by John, but I designed the look of them.

What's your favourite game ever?
Mario 3 on the NES. It's hard to explain exactly why, but we played the Japanese version, which we got as soon as it came out, so we had no instructions, and no tips or hints on the signs. We had to work everything out for ourselves, which led to a wonderful feeling of discovery. We didn't know that Mario could fly until we'd been playing the game for about two months, so it was an incredible surprise to find that there was a whole section in the clouds above the first level.

I think far too much is given away in games now. The instructions within the games spell everything out so clearly that there is no sense of discovery, and secrets and walkthroughs are often published (even officially) before the game is even released, which is a real shame.

What was the last game you played?
The last game I finished was Game Boy *Wario 3*, which was great. The gameplay was split into lovely short chunks, so I could play a level on the bus to work in the morning, and always finish it before I arrived. I'm playing *Perfect Dark* at the moment, which I'm enjoying more than I expected, considering that I hated *GoldenEye*.

What's your favourite movie, book and album of all time?
Movie: probably 'Goodfellas' – a movie-making master class. Book: 'Gravity's Rainbow' by Thomas Pynchon – mind-blowing. As far as albums go, I think I've probably listened to the first Stone Roses album more than any other record ever.

"Publishers only want copies of last year's hits. How many more karting games do we need? How many more *FIFA*s?"

Which game would you most like to have worked on?
I can't say any of my favourites (*Mario 3*, *Yoshi's Island*, *Zeldas*, etc) 'cos I might have messed them up. I'm quite happy with what we're doing right now at Zed Two, really.

Of all the games you've been involved with in the past, what's your favourite?
Right now, *Wetrix*, because it's the game where we've had the least publisher interference, and had to make the fewest compromises, so it's a finished product that most closely resembles our original ideas.

Is there anything in particular that annoys you about the industry?
The fact that its next to impossible to do original games, and that publishers only want copies of last year's hits. How many more karting games do we need? How many more FPSs which describe a slightly different shape of gun as an 'innovative new feature'? How many more *FIFA*s?

I'm disappointed that after some exciting early years, there has been little or no development of gameplay ideas of late. All the focus has been on minor tweaks and modifications to existing game concepts, masquerading as originality.

What is the most expensive item that you have ever bought with a bonus?
Bonus? Actually, I did get a few grand bonus when *Ken Griffey* on the SNES started selling, and I used that for the deposit on my house.

Which new platform are you most looking forward to?
GameBoy Advance, mostly. We're not really bothered about platforms, to be honest. We like games, and tend to get excited about game ideas, rather than the hardware they are implemented on. We'd come up with great game ideas for digital watches if somebody would pay us. It's exciting to have better graphics and sound available with which to realise your ideas, but for a small company like us, without unlimited resources, the newer platforms mean more money spent on development. More money spent on development means a greater urgency to make that money back, which means less risks. This of course means more 'safe' clones of last years hits, and less 'risky' original games. More karting games, in fact.

What's your take on mobile-phone gaming?
My gut feeling is that it is nothing more than a fad right now, a buzzword used to separate investors from their money. Sure, I'd play a game on a phone in my hand (I play my Game Boy), but I wouldn't pay for it. Maybe when the screens are better. Then again, I'm quite prepared to be completely wrong.

inbox

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I read with great interest 'X-Box – The Story So Far' in **E**88, and I've drawn several conclusions.

Microsoft wants to be the new Sony of the console business. The only problem is, I don't think the X-Box will ever be as revolutionary as the PlayStation. I am not talking technical specs. I am talking about cultural phenomenon (or is that saturated marketing campaigns?). Like it or loathe it, and not withstanding the current (perceived) difficulties with the PS2, no one can deny that Sony has, to a large degree, created massmarket appeal to what was once a niche area. In other words, the PlayStation has street cred and loyalty base. The PS2 will be a success, even if it is technically inferior to a would-be rival that is one year (at least) away from release.

The way the project was initiated has planted a seed of doubt in my mind. Bill Gates had to be sold the idea and nearly balked at the prospect X-Box not being PC-compatible. It suggests to me that once the big money has to be spent on manufacturing and marketing, we shall get a true indication of the Microsoft's commitment to the project. The X-Box is so different from Microsoft's core business that with the current legal problems in the US it may not make the X-Box a top priority.

The main thing that stuck in my mind from the article was the very last paragraph. It was stated that the games situation was unclear and the X-Box creators were only too aware that this was the most important issue. In the past few months several developers have announced that they have ceased working on the Dreamcast. This does not bode well if a relatively established format is losing out to a machine (PlayStation2) that has not yet been released in all territories.

Raymond Russell, via email

Microsoft is doling out $500m in its bid to build a PS2 beater, which sums up just how serious its views this new avenue. More importantly, the X-Box team is a bunch of gamers, not suits.

With regard to your question in **E**87 as to why the other half of the European Dreamcast owners haven't signed up to the Dream Arena service yet, it's because they can't. I live in Holland, one of the most densely cabled countries in the world, yet it is impossible to use a Dreamcast for going online. Sega keeps making all kinds of promises, but the fact of the matter is that Dutch Dreamcast owners have paid for a modem they can't use. Furthermore, it is almost impossible to find a Dreamcast in any high-street store in Holland today. Chains like Dixons have already slashed the price of a Dreamcast by half. Are these the signs of a healthy competitor in the next-generation market?

The sad thing is, I really like Sega. Games like *Jet Grind Radio* and *Chu-Chu Rocket* look really appealing, but if I, as a resident of one of the ten richest countries in the world, can't find a Dreamcast and go online with it, that surely must say a lot about Sega's chances for the future.

Maarten Brands, via email

It certainly seems that the scale of the Dreamcast online element was underestimated. The old 'six billion players' claim looks even shakier today.

As I read through your article 'Ever Decreasing Circles?' in **E**87, it occurred to me that Sega ought to do the following, regarding the Internet connectivity issue: build a 'universal modem' – a replaceable unit that offers the following:

1. A 'normal' modem performance, offering a 56K minimum, preferably more.

2. A LAN 10/100mBit Ethernet port.

3. Optionally, a USB port for future compatibility.

The modem should be able to be configured with an existing ISP connection, since most people already have an Internet connection at home, and are reluctant to have yet another one installed. The data should be saved on your VM unit for further use, of course. The same thing should be possible with the Ethernet port. I am the owner of an xDSL connection at home and would love to use this in conjunction with online gaming on the DC. LAN gaming would therefore also become a big step forward, and give the DC a bleeding edge.

By doing this Sega could be relieved of some of the burdens of acting as an ISP, and let others deal with these issues, and attract those people already owning an Internet connection. Surplus funding could be used for spicing up the Internet portal, which still should be there by default.

Massimo Fiorentino, via email

A number of significant DC developments are due over the next 12 months, in fields that include comms tech, so you may find online satisfaction.

Industry, gamers and retailers rave about the sheer power of the next-generation games consoles, but little is said of what is perhaps the most important interface between the gameplayer and the game code. Control pads are rarely mentioned, unless it's news of Miyamoto's Dolphin controller or Sony 'borrowing' the rumble concept for its Dual Shock controller. Yet without an intuitive and ergonomically balanced controller, the best game can be spoiled.

Nintendo makes the finest controllers, even though the N64 pad looks cheap with its creaky plastic casing and an analogue stick that starts off



According to Joachim Wold, PSone is evidence of a Sony cash-in. Anthony Percival, meanwhile, communicates somewhat different feelings

stiff, then becomes smooth, and with age gains grit. But the actual shape, layout of buttons and balance in the hand was perfect. The N64 pad seemed durable, too. Dual Shock was a welcome addition with a hefty bulk that filled this westerner's hands. Analogue sticks soon became sloppy and inaccurate, requiring replacement every three to four months.

Much is said about Dreamcast – some good, most bad. Sega's great white hope is solid, of clean design and boasts enough oomph to run complex code. Games like *Virtua Tennis*, *Soul Calibur* and *MDK2* endear me to the Dreamcast, but I worry about the poorly designed and cheaply manufactured control pad – I'm on my third pad in four months. The red 'A' button loses its bounce all too soon. And how can you drive a racing game with analogue 'triggers'? Trigger action, borrowed from firearms, involves a closing action. Hovering the trigger at halfway wouldn't be so hard if the stick and buttons sat in the correct plane. Visiting friends have marvelled at the software and struggled with the pad. "I would buy one, but for those horrible pads," they say. Personally, I put up with control frustrations to savour what Sega does best: software.

As Dolphin, X-Box and PS2 land in our docks, will their controllers open our minds or cramp our hands? I suspect the Nintendo offering will feel cheap, but will otherwise outclass the competition.
Rob Cole, via email

It seems to me that Sony has got it all backwards. I read on the cover of the official mag the words: '... how PSone will revolutionise gaming'. Eh? What's the deal here? The old PlayStation in a shiny new package won't change the face of gaming forever – but the next generation of consoles will. What is so special about the 'new' kid on the block, then? It's not as if they actually modified it for the better, adding more RAM, faster CD drive or anything – Sony's just showing off.

Having been an avid PS fan for almost five years now, I've been happy with Sony's efforts. The old PlayStation is a great machine, although it's clearly showing its age now. So it's time to move on. But wait, is that the sound of a cynical marketing ploy I hear? Or is it the sound of pure stupidity on Sony's part? Sony seems to be having trouble letting go of the PS, so they try to cash in on the 75 million who still own the machine by rereleasing the same five-year-old technology. Why aren't they concentrating on the PS2 and its impending western debut? Of course, it could be because they are afraid of standing up to game publishers everywhere, because they know that an average PS game equals money in the bank for them. That's why we see *Tomb Raider V* (Core Design, give it a rest) on the PS, that's why companies release games for superior formats like DC and PC, but still squeeze in money-making conversions to the good old PS.

I totally agree with you guys: releasing the PSone so close to the PS2 launch could be a potentially fatal flaw. It will only create more confusion for the consumers who are not tapped into the whole videogame scene.

Picture this: a mother walks into a game store at Christmas: "Hello, I want to buy one of those new PlayStations for my son." Shop assistant: "Sure, miss, which one?" Mum: "What do you mean? Is there more than one of them? Hmm, I'm not too sure about this... Which one is the cheapest then?" Shop assistant: "That would be the PSone." Mum: "OK, I'll have that one. How much did you say?"

Do you get my drift? It's no problem for customers to understand that there's a difference between PS and PS2, because the current model is so recognisable. But a semi-new model can only hurt PS2 sales and will make developers continue to flog the almost-dead horse that is the PS to keep the publishers happy, because cash rules the publishing world, and great games rule the development world. Those two worlds will almost surely collide if Sony doesn't grow up and move onwards to the new age. They've got a great machine with the PS2 – they should be exploring the new possibilities. Mobile phone connectivity? Pah, I want great games for my console, that's why I buy it. One day we all have to leave our childhood toys behind. When will Sony leave theirs?
Joachim Wold, via email
And another perspective...

When Edge first launched, each issue was to me a tantalising, nay teasing ('the future is almost here', I think were the words) view of the dizzying delights promised by the superconsoles of tomorrow – and it still is. Holding a fresh issue in my hand, I would sometimes wish I could see four, maybe five years into the future, just to catch a glimpse of what fantastic new console/piece of software adorned your front cover/pages – indeed, such issues as the one which revealed 'Sony's world-beating gamebox' (circa '94) often induced this sort of wishful thinking. And here (at last) is my point: would any of us have believed, bearing in mind the speed at which computer technology was supposed to be evolving, that five years down the line a slightly modified (re)iteration of seven-year-old console technology would still be dominating the front cover and pages (I refer, of course, to PSone)

"As Dolphin, X-Box and PS2 land in our docks, will their controllers open our minds or cramp our hands? I suspect Nintendo will outclass the competition"



According to Snowman Jr, the nuances of *Rayman 2* can be the cause of much trouble and strife within the home

of **Edge**? Sony, I salute you (and look forward to the all-singing, all-dancing PStwo in 2005!).

Anthony Percival, via email

More irony? That's two months in a row.

Once again it is time for the well-worn argument of 'violence is caused by...' to rear its head and turn its attention to your favourite and mine, videogames. Well, while we're on the subject, I may as well have my thrupenny bit's worth.

I've played many games and clocked up many hours on the keys/stick/pad so I am more qualified than many to sit on the appropriate side of the fence: videogames do cause violence.

I have seen many cases of this in my time and I shall relay to you just one by way of example. My girlfriend (an avid *Tekken* fan) was recently playing her latest DC acquisition when there was an obvious and distinct change in her personality. For someone who never swears, the air was bluer than a Smurf, and rarely has a controller taken such a hammering. The aggression was there for all to see, and it was every bit the fault of the game.

I believe that all games of this nature should be banned, for it is our moral responsibility, as today's gaming generation, to stop this behaviour from spreading any further, least of all to our children, at whom many of these 'games' are aimed.

I speak, of course, of the deplorable *Rayman 2*, and all such 'platform' games with their annoying "I pressed jump!" moments, and the all-too-frustrating "I never did!" fall-of-death occasions.

Join me, my fellows, and my organisation End Platformers Or Suffer Shall Our Morals! You know it makes sense!

Snowman Jr, via email

Make sure she doesn't get hold of *F355 Challenge*.

I feel I have to write this letter on behalf of all gamers out here, concerning yourself and all other games magazines on the subject of scoring. As we all know, the small print on the opening page of Testscreen explains your scoring system. Now, I totally agree with you that five is an average score for a game, but there is also a baseline for what we gamers will consider buying. Unfortunately, playing a game with a score of five is very different from playing a game with a score of seven and above.

I have been playing games for about 18 years now, and have made my own scoring system (that I believe is the same for hardcore gamers) based on **Edge** reviews. If you give a game a seven and it is the type of game I like, then I will consider buying it; if it has an eight there is a greater possibility that I will purchase it; if you score nine or ten then I will definitely buy it. However, I will never buy a game scoring six or below. This does not mean that seven is an average score, it just means that us gamers know that this is our baseline for a good game that will keep us happy for several hours.

We, the hardcore gaming nation, are bored of uninspiring games and are sick and tired of PlayStation dross – this is why seven is considered an average and not five by the gaming public, and whatever you write will not change this – this is the view of the nation.

This is why I have stopped buying games before you review them, as a game can seem so good from the press build up (including yours) and be such a flop after you have reviewed it. I talk from experience, and a couple of games come to mind, such as *Mission Impossible* and *Tekken Tag Tournament*.

Shaun Satterthwaite, via email

Finally. Someone who gets it.

One thing unites all online gamers: the search for the ultimate setup. Whether it be 'best mouse', 'best graphics card' or 'best config', there will always be debate, differing opinions, and constant technological improvements that render last week's top choice redundant. Take mousemats, for example. There are two main contenders: the 3M Precise Mousing Surface and the Everglide Large Attack Pad. Oh, how they fight for the gamer's approval. The 3M, celebrated for its sensitivity and used by some of the world's top *Quakers*; the Everglide, new kid on the block but with infamy gained from its stability and durability (and an endorsement from l33t Yank *Qller*, Makavelli). Both are similarly disadvantaged, though: price and availability. It's a specialist market and that's reflected in the pricing, and you can add P&P to that because you're not likely to find either on the shelves of your local PCs 'R' Us.

But the struggle for mousemat supremacy is over. The Holy Grail has been discovered. You're reading it. I don't know what treatment the cover of this fine mag is given, but it works wonders. Smooth but accurate, big enough for the 'low-sensitivity' players, but never obstructive. Cheap, readily available and a fine read between frags.

The secret is out, and it's spreading like wildfire, I kid you not. Within a month it'll be the number one gaming surface in this country. The UK online gaming scene thanks you.

AFT^oUtKast, via email

Truly, this is a victory for both style and substance. Okay, the new '101 Other Uses For **Edge**' initiative starts here. Send in your suggestions. (No, nothing involving rolling it up and sticking it anywhere, please.)

"The air was bluer than a Smurf, and rarely has a controller taken such a hammering. The aggression was there for all to see, and it was every bit the fault of the game"



Shaun Satterthwaite's 'bitter experience' of *Tekken Tag Tournament* was brought about by taking a punt on the game before reading **Edge**'s review



Next month: the definitive interview


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